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CLINICAL MEDICINE

Dependable Therapeutic Fact for Daily Use

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**CLINICAL
MEDICINE**
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Rushing Patients to the Hospital

A CORRESPONDENT, commenting upon the article by Mr. Gifford in the April number of *CLINICAL MEDICINE*, entitled, "Why Doctors Fail," suggests, as one of the causes of financial embarrassment among physicians, the practice of rushing every patient off to a hospital, when the patient in question is neither physically in need of it nor financially prepared. The result is that whatever little money the patient may possess is eaten up in hospital expenses, he comes out insolvent, and the physician gets only a promise to pay in the future.

There is a great deal of truth in what our correspondent says, from more points of view than that of the doctor's economic interests—albeit that is a perfectly legitimate viewpoint, too. Indeed, for several years, we have been of the opinion that the hospital-stunt was being altogether overdone. Far be it from us to belittle the value of the hospital or to dissuade any physician from making use of its advantages; for, the opposite is true—as we need not say. There most assuredly are cases in which the interests of the patient absolutely demand the care and facilities to be found only in a hospital; and the physician who, in such cases, but, because

the patient is in difficult circumstances, foregoes or delays collection of part of his own well-earned fee, for the sake of procuring for his patient these needed advantages, is a hero and a benefactor; of whom, thank God, the medical profession is full. On the other hand, where the patient is amply able, financially, to stand both a hospital-bill and a doctor's bill, there is no reason why he should not be given the benefit of hospital care, even in those instances in which it is not absolutely essential to the successful outcome.

But, undoubtedly, there are many, very many, instances, as our correspondent suggests, in which the doctor rushes patients off to the hospital when it really is not necessary, either because the doctor has the hospital-habit, or in order to relieve himself of a certain amount of responsibility, or for advertising effect, when, as a matter of fact, the patient is unable to bear the combined expense of physician and hospital, and, so, ought not to be subjected to it.

From such an unwise and unnecessary practice both patient and physician are bound to suffer. Many times this sets the patient back to an extent from which it will take him months or even years to recover, while laying

the foundation for a superstructure of debt that grows—as debts have a habit of doing—until it overwhelms the victim. And in this unfortunate result the physician necessarily shares; for, every such financially disabled person is a dead-weight upon the prosperity of the community, including its medical constituents.

We will not say more upon the subject, lest we be suspected of decrying the hospital or of discouraging the legitimate resort to it. It is not of its use, but of its abuse, that we now are speaking. And we make this brief mention of the matter for the purpose of pointing out that in this, as in all other respects, the interests of the physician are bound up with those of his patients. Consideration for the circumstances and position of the patient not only is incumbent upon the doctor, as a man of honor, but in every case will redound to the circumstances and economic interest of the doctor himself.

I do the very best I know how—the very best I can do; and I mean to keep doing so until the end. If the end brings me out all right, what is said against me won't amount to anything. If the end brings me out wrong, ten angels swearing I was right would make no difference.—Abraham Lincoln

THE ABBOTT ALKALOIDAL COMPANY CHANGES ITS NAME

The Abbott Alkaloidal Company has issued the following important and significant statement:

Owing to the rapid expansion and broad generalization of its business as manufacturing and importing chemists, The Abbott Alkaloidal Company has deemed it expedient to change its incorporate name to The Abbott Laboratories, and has done so. No change in personnel or policies. Our business is to serve the professions, through the general channels of trade or direct (at the most convenient point), as best serves their convenience. Price list on request.

For a number of years, this company has been broadening out and enlarging the scope of its activities. As most readers of this journal will remember, some four or five years ago it entered the biologic field and now puts out a full line of serums, antitoxins, vaccines, and similar products, both for human and veterinary practice. Also, it is engaged in the manufacture of pure chemicals and is constantly adding to its already large line of pharmaceutical products, many of which are not distinctively alkaloidal.

It is only fitting and proper, therefore, that a name should be adopted, which is broad enough to cover all the activities of this

progressive, up-to-date American enterprise, in the future prosperity of which we are sure every reader of CLINICAL MEDICINE has a warm personal interest.

The old name, "The Abbott Alkaloidal Company," is dear to many of us. Under its new name (The Abbott Laboratories), we believe that this enterprise is destined to have a new birth, put forth greater endeavor, and realize greater achievements. The active-principle idea, of course, will remain the central one in all its future activities.

RENEW YOUR LICENSE

Every doctor, dentist, and veterinarian living in the United States should bear in mind that the license taken out under the Federal Antinarcotic Law on March 1 expires on July 1 next. Send \$1.00, at once, to your local Collector of Internal Revenue to renew the license for one full year. Remember that the fiscal year begins on July 1 and that the license procured at this time will be good until July 1, 1916.

Do not forget this. Remember the confusion, disturbance, and trouble incurred when you took out your first license on March 1, and anticipate such trouble by making application immediately.

Also, if you need more of the official order-blanks, it is a good time to put in your requisition now. The price of these blanks is one cent each, and they are sold in blocks of ten.

THE FORCE OF NEGATION

If you haven't read it, get that delightfully woodsy book of Gene Stratton Porter, cyleped "The Harvester." You will be interested by the pretty story with its impossible feminine ideals, edified by many things it tells that you didn't know, and amused by others the authoress thinks she knows, but doesn't.

The Harvester is a gatherer of medicinal herbs. He goes further; tries his hand at "compounding," and concocts a wonderful remedy. With this, he saves his ladylove after the doctor has given her up. Then, instead of launching into the patent-medicine business, as was to be expected, he heroically resolves to present his remedy to the medical profession, in conclave assembled. This body of grave and reverend seigniors grants the herbalist the floor and listens in spellbound silence while he tells of mixing so many handfuls of sweet marjoram with half as much of pennyroyal and a peck of skunk-cabbage, expressing the juices, adding rock-candy and

proof spirits and a cake of compressed yeast; then trickling a few drops between the lips of a corpse and seeing the dead return to life and ask for a drink of whisky. Thereupon the doctors, whose only thought is that they have been furnished the means of better accomplishing their duties in saving life, are enthusiastically grateful, vote their thanks and a medal, and the herb-man gets his picture in the papers.

How very like the truth! Just the way doctors welcome any promising innovation, isn't it! Well, not quite.

De La Motte Fouqué, in one of his romances, describes a visit made by his hero to the coast of Norway. Here he found a spear on an altar at the top of a hill, said hill being lined with stalwart Norwegians armed with sword and shield; the welcome to the visitor being permission to fight his way to the top and secure the spear—if he could. That describes quite exactly the sort of welcome accorded the presumptuous being who seeks to present the medical profession anything new and better than their oldtime stuff.

Go back as far or as near as you like over the history of medicine, and this has been true of every real advance that has been proposed. Not one physician over the age of 45 years accepted Harvey's discovery of the circulation of the blood. The persecution accorded the discoverers of vaccination, anesthesia, and other great advances in our science are too well known to deserve more than mention. And the same spirit is manifested individually when any rash man attempts to present a new idea or remedy to his personal colleagues. At once the instinctive opposition of each is aroused. That fellow thinks he can teach *me*! Well, hardly! Presumptuous ass! And his little idealet is squelched at the outset.

This spirit is the ruling principle of man. It is manifested in all lines of human endeavor, except possibly in business and mechanics, where the late improvements are taken up, even though they relegate many hundreds of thousands in expensive machinery to the scrap-heap.

We need not berate ourselves, then, as being more conservative or less willing to be taught than other men. The clergy have, assuredly, no stones to throw at us. But rather do we look on this as a natural, human phenomenon; and defend it, by claiming that, if any innovation has not the ability to maintain itself and make its way, it has not that intrinsic merit, that vitality that alone approves its right to survive. Instead of weakly

wailing over our slain child of the mind, let us get out and fight for it manfully, confident that in the end the right must prevail, else cosmos sinks into chaos.

A very pretty example is afforded by the latest raid on viburnum. The man who has popularized the plant is touched up delicately but effectually; not so much as the proverbial grease spot remaining to show his former existence. Then the drug itself is lifted on tongs and held to the light. Damned with the very faintest of faint praise—it may possibly be slightly astringent and a bitter tonic; if, indeed, bitters are really tonic, for they did not increase the secretion of dogs' gastric juice—although who ever gave them to increase dogs' digestion? But, as to viburnum having any remedial effect in the line of maladies for which it has been recommended, that is absurd. Because—I am not convinced that such is the case. It is impossible to read that article and not see that the writer started it with the intention of writing the drug *down*.

True, many hundreds of doctors have administered this very preparation of viburnum, to check the contractions of a pregnant uterus trying to throw off its contents, and have seen the irritated organ quiet down and the fetus be retained under its use—but that means nothing, for *I* am not convinced. And until *I* am convinced, nobody must use the drug. Should the clinician venture to stick to his guns, he is met by the unanswerable question, "How do you *know* the viburnum had anything to do with the result?"

Few have had, in their own person, experiences enough to answer this question confidently. The testimony of hundreds of practitioners, scattered far, repeated during years of actual practice, is of value only when collected and arranged into masses.

Knowing this proclivity of men to knock the other man's suggestions, and especially when the innovation is so startling as to threaten demolition of old structures and rebuilding of the edifices of belief and practice, we were impressed by the vehemence with which hypodermic anesthesia was antagonized. Compare this with the enthusiasm with which Bergeron's gas-inflation method of treating tuberculosis was received. Here was no ordinary opposition, but a general, radical taking of sides against the innovation by the big men, with a unanimity that denoted *scare*—it was a matter that must have struck deeply, to arouse such vehemence. So, we expected to find this a revolution-making matter, one that would rattle down a lot of

dry bones from the shelves on which they had been displayed, ticketed and exhibited as *complete*.

Gauss published his first paper, describing his technic; and a number of his Germanic colleagues took up the idea, used a technic that Gauss himself declared would ensure failure, and decided against the method. A distinguished American physician tried it in just one solitary case, gathered the early statistics from these Germans who had not used Gauss's method, and juggled his statistics so as to deduce a very bad mortality average. Around this small point the leaders of medical matters and thought crystallized. The masses of the profession, at least in America, continued to use the method and found it good. The intention of condemning the method is evident from the first paragraph.

Then the ubiquitous public press got hold of it and let the women hear of the means of avoiding the pangs of childbirth. Woman rushed to her doctor with the new idea, Doctor heard her, looked wise, told her he knew all about it, and there was nothing in it. A century before, he had done the same thing when Simpson introduced chloroform, but then the doctor also talked like a book, of woman being condemned to bear her children in sorrow, because of Eve, you know. He may have hinted as much this time, but, at any rate, when he got through talking, woman looked at him a moment curiously, and then—asked him the address of the doctor who used the twilight-sleep method of painless childbirth!

There the matter rests. He who will may read the sequel.

The wife who asks about the matter and gets no encouragement from her husband looks after him as he goes out to get a tooth extracted under gas; she can not tell him to have the baby, as he seems to like that sort of agony. But she does some thinking, anyhow, and she says: "I am not stuck on this method specially, but I demand that the curse of parturition shall be lifted from me. If this is not an ideal method, devise one that will prove to be such; and, until you do, I shall use this. There may be some danger, but so is there in unsolaced childbearing; and I'll risk it."

And now we hark back to the thought with which this screed began—the force of negation. For, the greatest obstacle any new idea has to meet is not so much that of active opposition as that of inertia and of the negative instinct. Especially is this directed against

anything in the way of therapeutics. As soon as anybody ventures the suggestion that a thing is good for any disease, the little hammers appear and the knocking begins. So sure is this, that the therapeutic article dealing with the new or unusual has well-nigh disappeared from current medical literature.

Talk to clinicians, and you find they are having interesting experiences: ask them to publish, and they are afraid of the certain knocking they will get.

A man should learn to detect and watch that gleam of light which flashes across the mind from within, more than the luster of the firmament of bards and sages. Yet he dismisses without notice his thought, because it is his. In every work of genius we recognize our own rejected thoughts; they come back to us with a certain alienated majesty.—R. W. Emerson.

A NEW RULING UNDER THE HARRISON ANTINARCOTIC LAW

No sooner do we get used to the workings of the federal antinarcotic law, as in the beginning interpreted, when a new decision comes from Washington that completely changes the meaning of some sections. The latest ruling, which is embodied in Treasury Decision 2194, reads as follows:

Synthetic Substitutes: In exempting from its provisions certain preparations and remedies, the Act (Sec. 6) expressly excludes from such exemptions "preparations which contain cocaine or any of its salts or alpha or beta eucaine or any of their salts or any synthetic substitute for them." To effect the obvious purpose of this provision of the Act, the words "synthetic substitutes" are held to apply to any artificial substance or preparation which is or may be substituted for cocaine, alpha or beta eucaine, or any of their salts as ordinarily prescribed or used, and not necessarily to a purely synthetic substitute which, chemically, is identically the same as the drug for which it may be so substituted.

Further, both the title and Sec. 1 of this law include "opium or coca-leaves or any compound, manufacture, salt, derivative or preparation thereof," and, under a liberal interpretation of the word "derivative," from a chemical point of view, the several cocaine substitutes would also be clearly included.

Manufacturers of, dealers in, and physicians prescribing any such substitutes, as above defined, should, therefore, register and otherwise conform to the requirements of this law and the regulations issued thereunder.

The meaning of this decision plainly is, that *any remedy* that is used for the *same purpose* as cocaine or alpha or beta eucaine, *providing it is a synthetic*, comes under the provisions of the Federal Antinarcotic Law, and in accordance therewith physicians, dentists,

and veterinarians are required by law to keep records of all such drugs that they may dispense, distribute, or administer. Under a prior ruling, such remedies as novocaine, stovaine, alypin, orthoform, and the like, were construed not to be narcotics. Under this latest ruling, which, by the way, was issued on April 26, *they are now to be included in the provisions of the Act*, and the fact that not one of them is known to be used as a habit-forming drug makes no difference (to the Commissioner) whatever.

Every physician who has on hand and is using any such preparation as a local anesthetic in a manner similar to cocaine must hereafter keep a record of all he may dispense, and must add to his inventory of March 1, the amount of such drug which he now has in his possession.

We will not drown in wordy praise,
The kindly thoughts that rise;
If friendship owns one tender phrase,
He reads it in our eyes.

—O. W. Holmes.

NEW FACTS ABOUT TYPHUS FEVER

A young American bacteriologist, Dr. Henry Plotz, who is connected with the Mount Sinai Hospital, of New York City, at a meeting of the New York Pathological Society, held April 15, reported the discovery by himself of the specific organism of typhus fever. That Doctor Plotz's announcement is not a premature flash in the pan, unsupported by adequate evidence, is shown by the fact that his work has received the endorsement of such men as Hans Zinsser, professor of bacteriology at Columbia University; Doctors Noguchi and Meltzer, of the Rockefeller Institute; and Dr. William H. Park, director of the research-laboratories of the New York City Department of Health.

Scientific laurels have come early to Doctor Plotz, who was graduated from the medical department of Columbia University in 1913 and is now only in his twenty-fifth year. He became interested in typhus fever while still a student at Columbia, soon after Anderson and Goldberger announced the discovery that Brill's disease and true typhus fever are identical.

The first bacteriologic studies made by Doctor Plotz were with the blood of patients suffering from Brill's disease. From this, he isolated a bacillus that was shown to be capable of producing the disease when introduced into the bodies of guinea-pigs and monkeys.

Later, in the Quarantine Hospital of the Port of New York, he obtained specimens of blood from several typhus-patients who had brought the disease from Europe; and from their blood he isolated a bacillus which proved to be identical with that obtained from patients suffering from Brill's disease. The conclusion seems to be inevitable, therefore, that the two diseases, while differing greatly in severity, really are caused by two differing strains of the same microorganism.

We learn from *The Boston Medical and Surgical Journal* that Doctor Brill himself finally has admitted the absolute identity of these two types of typhus, being convinced by the demonstrations relative to the identity of the bacteria found in the two forms of this disease. This organism has received the designation *bacillus typhi exanthematosi*.

As has already been stated repeatedly in these pages, typhus fever is now known to be conveyed, principally at least, by the bite of any one of the three species of the louse; a fact clearly demonstrated by Anderson and Goldberger. Theoretically, therefore, it should be relatively easy to arrest the progress of an epidemic of this ravaging disease. In practice, however, the problem really presents extreme difficulties, as is shown by the spread of typhus fever in war- and plague-devastated Serbia.

Naturally, the discovery of the specific organism has led to efforts to secure a specific remedy, and already the announcement is made that Plotz has succeeded in preparing an antityphus vaccine, similar to the antityphoid vaccine so generally employed for prophylactic purposes. Plotz himself was the first person to be vaccinated, and Dr. Hans Zinsser, together with other members of the Rockefeller Institute expedition now on the way to Serbia, also were submitted to the same treatment; and the intention is, to give this serum a careful trial in that country.

Should Plotz's discovery result in the development of practical methods of preventing typhus fever and arresting its spread in epidemics such as that now witnessed in southeastern Europe, it will deserve a place among the great discoveries of medicine, and reflect not a little honor upon this young scientist.

It is significant, as *The Journal of the American Medical Association* points out, that a very large portion of the pioneer work relative to the cause and conquest of the insect-borne diseases has been contributed by American physicians. We need but mention the names of Reed, Carroll, Lazear, and Agramonte in

connection with yellow-fever; Ricketts, King, and McClintic, with Rocky Mountain spotted fever; McCoy, with plague; and Anderson, Goldberger, Ricketts, and Wilder, with typhus fever. As *The Journal* reminds us, the foundation for this work was laid by Theobald Smith, who showed that the Texas fever of cattle is transmitted by the bite of a tick.

Doctor Plotz certainly has enlisted in a goodly company. We can all join in congratulating this able young man.

There's not the smallest orb that thou behold'st.
But in his motion like an angel sings,
Still quiring to the young-eyed cherubim;
Such harmony is in immortal souls,
But whilst this muddy vesture of decay
Doth grossly close us in, we cannot hear it.

—Shakespeare.

GIVE BACK THE LEGIONS, VARUS!

A Chicago daily newspaper suggests that, as a worthy contribution of art to the lessons of the great war, some sculptor should fashion a woman's figure, noble and majestic, fitted to tower on some imposing pedestal and catch the whole world's sight, impressing upon her lips a beauteous scorn and giving her form an attitude of noble indignation; that this statue should be called Europa, and on the pedestal inscribe the accusing cry of the Roman emperor to the general who returned to Rome after having lost his army in the forests of the North: "Give back my legions, Varus!"

"Give back the legions of fathers, of brothers, of sons, whose death made desolate so many hearts, made dim the light in untold numbers of loving eyes, laid on the little child the blight of early orphanhood, and on the weak woman the burden of too great a struggle against poverty and despair!"

"But, most of all, give me back the legions of noble thoughts and aspirations, of dreams of progress and of better things, which must for years lie trampled beneath the iron heel of hate and poverty! Give back the ideal of a brotherhood too broad for any single land, that must now, for millions of men and women, again slowly struggle upward toward the light and free expression! Give back that city, not made with hands, whose white walls and gleaming towers so often seemed near the yearning vision!"

It is somewhat of an anticlimax to give so universal a human cry any particularization. It is characteristic of the human heart, however, to seize upon universal sentiments

and apply them to its own special needs and interests. My own heart and life, as of most of my readers, are bound up chiefly in medicine—medicine in its broadest aspects, to be sure, with all its world-aims and human interests, yet, medicine, after all, dear reader, is your mistress and mine, and it is to the achievements and aspirations and ideals of medicine that you and I, here and now, apply the words I have quoted above. It is of them, in particular, that we sadly cry to the war-god of Europe, "Give back the legions, Varus!"

Already we are stricken and lonely. Already the pleasant and profitable intercourse, to and fro, between the great ones of the nations, to which we delighted to sit and listen like favored guests at a banquet of good things, has died away. The friendly rivalry of national intellectual giants, all eagerly bent upon the betterment of men and the advancement of the race, is paralyzed. Genius no longer calls to genius across the salt estranging sea. We

Miss to hear high talk of noble deeds
As in the golden days.

Some of our heroes already have fallen asleep in the trenches.

... Such a sleep
They sleep, these men we loved. I think that we
Shall never more, at any future time,
Delight our souls with talk of knightly deeds,
Walking about the gardens and the halls
Of Camelot, as in the days that were.

"Give back the legions, Varus!"

All of this is saddening enough, and I, for one, go mourning all my days for thinking that "now the good old times are dead." But even this is not the worst. Just as one who is bereaved does not at once plumb the full measure of his loss, because the shock stuns him, but only after his return to the empty house and the silent rooms, realizes the dull blankness of his desolation, so, when at last the clash of arms is over and the excitement of war has died down, we shall realize more keenly than ever that the battle-fields have been the slaughter-ground, not alone of friends and brothers, whom we had learned to love and to honor, but of high ideals and of cherished purposes and of peaceful empires, which, as the periodical mentioned truly says, must now "again struggle slowly upward toward light and expression." We had thought that the fraternity of science and scholarship, at least, would have withstood the strain; but it, too, seems to have been swept into the fearful cataclysm, and many a weary year will pass before this

community of the mind will again attain the frankness and freedom that was its glory before this struggle of the nations.

Whatever is to be saved from the sad wreck, to serve as the nucleus of reconstruction, must be saved by American hands. The ark of the covenant is in our keeping. Its conservation is our solemn task. With malice toward none, with charity for all, with firmness in the right, as God gives us to see the right, it is for us American physicians, representing the link between the achievements of the past and the promise of the future, to bear up the ark, that it may not touch the ground, and to stand ready, in this as in other matters, to mediate acceptably when the hour of mediation shall strike. In this solemn task, each one of us has his part to play, however humble it may be.

DR. JOHN DILL ROBERTSON

We take special pleasure in extending congratulations to Dr. John Dill Robertson, Chicago's new Commissioner of Health. Those who profess to know about such things declare that the Doctor contributed not a little to rolling up the enormous plurality of more than 140,000 which landed William Hale Thompson in the mayor's chair. Knowing Doctor Robertson well and understanding fully his dynamic power and irresistible energy, we are convinced, not only that he helped to elect Mayor Thompson, but also that Mr. Thompson made no mistake in choosing Doctor Robertson as a member of his cabinet.

Dr. John Dill Robertson was born in Mechanicsburg, Pennsylvania, on March 8, 1871. His father, who was a Civil War veteran, died when he was but ten months old, and at the age of twelve the boy had to depend upon his own resources to make his way in life. His first "position" was as clerk in a combined drugstore and grocery store. Later he took up telegraphy, and still later—to be exact, in 1893—he came to Chicago to begin the study of medicine and surgery. He graduated from Bennett Medical College in 1896, and immediately entered Cook County Hospital as an interne. His later history is known to most readers of this journal.

Doctor Robertson is a natural organizer and promoter. He has been instrumental in putting two Chicago medical colleges on their feet, and has built up Bennett Medical College, now the Medical Department of Loyola University, from a weak Eclectic

institution to one of the largest and most successful regular medical schools in the country. He has also established two hospitals, the Frenches Willard Hospital and the Jefferson Park Hospital. He is also a member of the State Board of Agriculture of Illinois and founder of the State Fair School for Boys.

Doctor Robertson's position in the medical world needs no special explanation in these columns, to which he has in days gone by been an occasional contributor. He is a surgeon of national reputation—an operator of great ability and experience. He is still a young man, and has new laurels to win—and will win them. Knowing the Doctor as we do, we have great faith in him and are fully convinced that he will make his administration of the Health Department of Chicago one of the best, if not the best, that the city has ever seen. We extend to him our hearty congratulations and best wishes.

Certainly, in our own little sphere it is not the most active people to whom we owe the most. Among the common people whom we know, it is not necessarily those who are the busiest, nor those who, meteor-like, are ever on the rush after some visible change or work. It is the lives, like the stars, which simply pour down on us the calm light of their bright, faithful being, up to which we look, and out of which we gather the deepest calm and courage.—Phillips Brooks.

AMERICAN POSTGRADUATE COURSES

About this time of year, the American physician and student, as a rule, begins to consider the question of hieing himself away for the summer to some European postgraduate center, where he either may round out his college curriculum or else acquaint himself with some of the progress and the achievements of medical science that have passed over his head while he has been busy with the exigencies of his practice. In this particular year, however, the conditions in Europe will seriously interfere with plans of this kind and of necessity raise in his mind the desirability of selecting some postgraduate school of our own country.

This journal has, in the past, been a consistent champion of the advantages of the American postgraduate course, as compared with that of Europe. We recognize, just as keenly as anyone, the broadening and cultural influence of mixing with the people of other civilized countries and races, and seeing how they do things in other lands. We realize that, in medical science at least, foreign peoples have much to impart that America

would do well to learn, and, consequently, that in times of peace, for the exceptional man who may have spare time and means at his disposal, a visit to the European centers of medicine is to be commended. For the average practitioner, whose time and money are both limited and who must crowd into a month or so the maximum of advantage with the minimum of waste, we always have doubted the wisdom of such a course, even during the most favorable times.

Just now, however, this question need not be discussed. Europe is a closed territory so far as postgraduate work is concerned. If he is to undertake postgraduate work at all, the American physician will be obliged to seek it in his own country. And, in the main, we believe it will be a capital thing. It will lead many a medical man to "discover America." He will find, to his surprise, that his time and funds will yield far more genuinely satisfactory returns by his putting in the summer months at one or more of the numerous excellent American postgraduate schools than by a costly and hurried trip to Europe.

Here, the doctor may reap all the benefits of instruction from men who have attended the famed European centers, with much greater facilities and better capacity for profiting by them than he himself would enjoy if he went to Europe; and he will receive solid work and experience without any of the red tape and paraphernalia that always entail so much waste of time and money on the other side. So, when he returns to his home practice or undertakes his life-work, as the case may be, while he may not wear the ornate distinction that pertains (or used to pertain) to the man who has "been to Europe," he will find himself in possession of real advantages certain to help him to do his tasks in a thorough and workmanlike fashion—and that, after all, is what brings both satisfaction and success.

There are, as we have said, many excellent postgraduate schools and clinics in this country—schools fully equal to anything that ever came out of Europe. The closure of the European centers need prove no deprivation to a single American; on the contrary, it should prove the means of opening our eyes to the splendid opportunities in our own land, right at our door.

We shall be glad to advise with any of our readers who may contemplate taking a postgraduate course in the coming season and desire information and counsel in the selection of a suitable place for the particular kind

of work they wish to pursue. Make use of us freely, in this, as in any and every other matter.

Some say that the age of chivalry is past. The age of chivalry is never past so long as there is a wrong left unredressed on earth and a man or woman left to say, "I will redress that wrong, or I will spend my life in the attempt." The age of chivalry is never past so long as we have faith enough to say, "God will help me to redress that wrong, or, if not me, those that come after me."—Charles Kingsley.

USE THE ALKALOID—GO FORWARD, NOT BACKWARD!

Rarely indeed has the scientific relativity between a crude drug and its alkaloid been so clearly exemplified and closely paralleled by its general and clinical history as in the case of ipecacuanha and its active principle, emetine. One has but to turn to this interesting history, and there read the most powerful *argumentum ad rem* that could possibly be formulated in favor of the alkaloid as against the crude drug. In this respect, as Dr. Hermann Prinz pertinently remarks in a recent article on the subject, the story of ipecacuanha and emetine is an almost complete parallel of the record of cinchona bark and its alkaloid, quinine.

Ipecac, like cinchona bark, was extensively used for many years, and, in spite of the crudities of its pharmacology, the specific influence of its emetine alkaloid over amebic dysentery was sufficiently apparent to foreshadow and lead up to the ultimate denouement achieved by Vedder in 1911—the demonstration of the positive amebicidal action of emetine, comparable, if not superior, to the demonstration of the antimalarial specificity of quinine.

It is true that with ipecac, as intimated, clinicians were able to obtain something of the antamebic effects of the drug; but in an exceedingly crude, precarious, unreliable, and disagreeable fashion, due chiefly to the extremely nauseating properties of the cephaeline coexisting with the emetine. The varying quantities of emetine and cephaeline, respectively, made the remedial action of the drug and its nauseating effect a matter of hopeless uncertainty. So precarious, in fact, and so disagreeable was its use, that even the benefits that it conferred could never attain any wide adoption by western civilization, however much the patient Hindu might be prevailed upon to undergo the treatment.

With the discovery of the specificity of the alkaloid emetine, the entire clinical situation

underwent a complete and conspicuous change. One has but to read Leonard Rogers' comparative report to realize the utterness of that change.

With emetine we have a clean-cut, definite, uniform, reliable, accurate antamebic therapy, with none of the disagreeable or impracticable features of ipecac. As I have said, it is even superior to the clean-cut specificity of quinine, as compared with cinchona. Nowadays nobody dreams of using cinchona for the specific action of quinine; cinchona still holds a place in the Pharmacopeia, and in therapeutic practice, but sheerly as a stomachic bitter, not as an antimalarial.

By the same token, there may be, and unquestionably are, still therapeutic uses for ipecac; but to employ ipecac for the specific amebicidal action of emetine, in dysentery, pyorrhea, or any other disease, is a foolish and unwarrantable step backward, comparable in kind to a return to the old cinchona practice, and a great deal worse than that in degree, as the untoward effects of ipecac are worse than those of cinchona, and the relative superiority of emetine greater than that of quinine.

Do not allow yourself, doctor, to be persuaded or misled into such a backward step.

The great error, it seems to me, in medicine, in our day, is to magnify the importance of pathological conditions and then become skeptical because we know, or at least think we do, that we can't cure them with drugs or any known treatment. The other equally great error is to minimize the value of relief of symptoms.—Beverley Robinson.

DIAGNOSIS VERSUS TREATMENT

In the pages of a lay contemporary (the name of the journal is immaterial), I have just come across the following paragraph:

"People fail to realize that the most serious difficulties that confront a doctor are, not those of treatment, but of diagnosis. The difference between a good physician and a poor one has little to do with the failure to apply remedies suitable for a given disease, but lies in the superior ability of the former to ascertain with speed and certainty what the patient is suffering from. Once a correct diagnosis has been made, the proper way of meeting the condition can be found by reference to any standard work on the practice of medicine."

This sort of statement is made so frequently, not only by laymen, but even by individual men inside the profession as well as in medical journals—when, in fact, it repre-

sents such an utterly false conception of things—that I feel constrained to make it the text of a few brief remarks.

I do not belittle the importance of diagnosis. As every reader of CLINICAL MEDICINE knows, the urgent, all-absorbing, ultra-imperative necessity of thorough, painstaking, accurate diagnosis has been preached, early and late, in season and out of season, from these pages. Chronologically speaking, it is the *first* important duty that confronts the doctor. But, that it is the *only* problem, or even the most momentous, that makes demands upon his faculties and his training, or that it marks the only, or even the chief, point of departure between the good physician and the poor one, is as foolish as it is gratuitous.

The truth is, of course, that neither diagnosis nor any other of the collateral branches of medicine has any meaning, any *raison d'être*, any orientation, except as it subserves treatment. Treatment is the end-all and be-all of the healing art, to which everything else is tributary; otherwise, it is of no value to medicine.

To be sure, a correct diagnosis is a preliminary essential to good treatment; but, to imagine that, once the diagnosis is made, the treatment presents itself, ready-made, like the label around a package from a penny-in-the-slot machine, is, to evince an extremely crude conception of what diagnosis implies. One might just as well say, the real and only crux of success in finance is, to get money; once obtained, any fool can tell you how to invest it. So, I suppose, he could; but hardly so as to help the financial game very much. Investing one's money is just as important a part in the business of finance as the getting of it—more important, I rather fancy, financiers will tell you. By the same token, to arrive at a correct diagnosis, is not of any great value in medicine, unless you know how to utilize to best advantage the diagnostic information thus acquired.

There's the point, exactly. A diagnosis is not a material but elusive now-you-see-it-and-now-you-don't something that the "good" physician, by some species of legerdemain, is able, blindfolded, to conjure out of its hiding-place and tell what it is by fingering and inspecting it. Diagnosis, clearly, is simply a collection of information about your patient's condition, which you obtain by means of various methods (*also* "to be found by reference to any standard textbook" on diagnosis), and which, viewed as a whole, gives you an idea, sometimes fairly definite, some-

times decidedly tentative only, of the disordered processes at the moment going on within the patient's body.

So far, so good. Certainly, it takes a good physician to make a good diagnosis. Still, there is nothing uncanny or mysterious about it. Any physician who knows his physiology and pathology, and will take the pains to apply the known methods of diagnostics, can do it.

If there be any question at all of finding things readymade "by reference to a standard work," it applies to diagnosis more than it does to treatment. I do not mean that either of them—or, for that matter, anything else in the practice of medicine—can be done in that way. But, really, if we are going to make comparisons of that sort between the two, it is a much more feasible thing for the doctor nowadays to get his diagnosis readymade than his treatment; for, in the former, he has a hundred and one expert aids at his service—the laboratory, the x-ray, the biologic test, and what-not—but, in the latter, he must rely wholly upon his own judgment.

There—I have said it! If we wish to express the crucial difference between the good physician and the poor one, it is to be summed up in that one word, *judgment*. Neither in diagnosis alone, nor in treatment alone, but in the *judgment* with which the otherwise fully equipped physician proceeds lies his success or his failure. It is precisely the same thing that makes a good business man.

And, so, I repeat, the exercise of judgment is taxed far more crucially in the matter of treatment than in the matter of diagnosis; for, as already intimated, modern diagnostics have taken diagnosis largely out of the realm of judgment and made more or less of a Q. E. D. procedure of it; but, treatment always has been, and always will be, a problem for the exercise of the very nicest kind of judgment, to which must be brought every faculty and quality and experience the physician possesses.

Anyone who imagines for a single moment that, having arrived at a diagnosis, all the doctor has to do is, to label the diagnosis with a disease-name and then just look up the name in his book for the axiomatic treatment for that disease, has another guess coming.

If you should ask me, *that* is precisely the point of departure between the good doctor and the poor one. I say again, all that up to this point has been done by the doctor and by those who have aided him has merely been preliminary data-gathering, in preparation for the supreme exercise of the essential, par-

amount function for which the physician exists. Up to this point, it is quite possible for good and poor physician alike to arrive at the same goal, inasmuch as there are certain established diagnostic measures to be applied that will almost automatically work out the diagnosis. Right here, is the parting of the ways; for, from this on all depends upon the trained *knowledge*, the ripe *experience*, and the wise *judgment* of the physician himself.

Let the weakest, let the humblest remember that in his daily course he can, if he will, shed around him almost a heaven. Kindly words, sympathizing attentions, watchfulness against wounding men's sensibilities—these cost very little, they are priceless in value. Are they not the staple, almost, of our daily happiness? From hour to hour, from moment to moment, we are supported, blest, by small kindnesses—F. W. Robertson.

LAW BREAKERS OR LAW MAKERS?

One of the principal reasons for the growing contempt for law in this country is, the manner in which the laws themselves are being administered. Many of those having their enforcement in charge have the bad habit of setting themselves up as lawmakers. Altogether too often their interpretations of the meaning of a given statute are clearly at variance with the plain letter of the law itself. Here, for instance, is a striking illustration:

As you will recall, the Federal Antinarcotic Law states that a record of narcotic drugs dispensed must be kept by the physician, dentist or veterinary surgeon, "except such as may be dispensed or distributed to a patient upon whom such physician, dentist or veterinary surgeon shall personally attend."

The Commissioner of Internal Revenue first made the ruling that the word "attend" meant to "visit." Therefore, if a patient comes to a doctor's office, a record must be kept of all narcotic drugs given or administered to him, because in such an event the doctor is not making a "visit."

Such a ruling, from the standpoint of common sense and of the ordinary meaning of the English language, is absurd. It placed a great burden upon dentists, oculists, and others using cocaine and other similar drugs in large quantities in office practice. Evidently practitioners of this type made their opinions known in a rather forcible way. The result was, the following ruling, which we reprint from *Treasury Decisions*, March 11, 1915:

A physician or dentist who administers minute quantities of drugs, toming within the scope of this law, in his office may keep a record of the date

when a stock solution is made and the date when such stock solution is exhausted without keeping a record of the name and address of each patient to whom such drugs are administered. This plan will be allowed, however, only in cases of those physicians and dentists who use minute quantities of these drugs, such as oculists, aurists, and other specialists; but, where a physician engaged in a general practice otherwise administers such drugs, it will be necessary for him to keep a record of the name and address of the patient, of all drugs dispensed, distributed, or administered in his office, and of such drugs left with a patient to be taken in his absence. Only such drugs as are personally administered by a physician to a patient when away from his office are exempt from record.

Now, what does all this mean? Simply this: that there is one kind of law for the general practitioner, and another kind of law for oculists and other specialists. It means also that men who use large quantities of cocaine in office practice are practically exempt from record requirements; while, on the other hand, those who use *small* quantities, not requiring the preparation of stock solutions, must keep a record of every drop of cocaine solution or other local anesthetic which they administer, no matter what the conditions under which the drug may be used.

It seems plain that the Commissioner of Internal Revenue has *himself* created a form of law which, in its very essence, is *unconstitutional*. To be constitutional, as every man knows, the law must treat all men alike. We would respectfully inquire whether the Commissioner's "law" does this.

Unfortunately, the general practitioners, and especially the country doctors, including the 75,000 to 80,000 physicians who dispense their own remedies, have no representatives in Washington looking after their interests.

Flowers seem intended for the solace of ordinary humanity. Children love them; quiet, tender, contented, ordinary people love them as they grow; luxurious and disorderly people rejoice in them gathered. They are the cottager's treasure; and in the crowded town, mark, as with a little broken fragment of rainbow, the windows of the workers in whose heart rests the covenant of peace.—John Ruskin.

SOME EMETINE HISTORY

That the remarkable results recently obtained from the use of emetine never could have been secured with ipecacuanha, is certain. Four centuries after the introduction of this root as a specific for dysentery, it had not yet established its place, except as one of a number of alleged remedies for that malady. Nor could it ever have established itself in a higher position; for, only by being

dosed and administered, so as to avoid emesis, could its remedial powers be utilized in dysentery. And this required the extraction of the alkaloid in chemical purity.

"But," some ask, "why did not you alkaloidists discover these virtues, when you were exploiting the pure alkaloids so loudly? Why wait for outsiders to make a discovery that was precisely along the line of your work?"

This is the answer: It was not possible to limit the use of emetine to the amebic variety of dysentery until the latter had been differentiated from the bacillary form. But, to the extent that the pathologists had afforded light, we had progressed with the employment of emetine.

In "The Treatment of the Sick," published in 1897, we read, on page 127:

"In tropical, epidemic, and all severe forms of dysentery, the ipecacuanha-treatment has proved efficient. One dram of the fluid-extract or of the powder, with just enough water to wet it, is to be taken without any further water or other diluent. The patient must then be perfectly quiet for five minutes at least; and the dose is not apt to be vomited. If it comes up, a similar dose should be given at once, and repeated until vomiting ceases. This is to be repeated every twelve hours, until the characteristic ipecacuanha stools appear; when the fever, tenesmus, and other symptoms will have been greatly ameliorated."

On page 128, Castro, the great Portuguese alkaloidist, is quoted as using the expression, "emetine for the parasitic element."

In the "Manual of Treatment by Active Principles and New Remedies," published in 1893, we read, on page 127: "Dysentery: Emetine for acute forms, tropical, epidemic or malarial; for children with nausea and fetid, unhealthy stools, greenish, bloody mucus." That comes as close as our knowledge that time permitted.

"The Textbook of Alkaloidal Therapeutics," published in 1904, says, on page 216: "In dysenteries of the graver type, tropical, *foudroyant*, it [emetine] is a specific. Given in doses of a grain, with every precaution to prevent vomiting, emetine exerts a degree of control over this malady not approached by any other remedy. The patient should be prepared for the night, in bed, and then take the dose in tablets, which must be swallowed whole and dry, with no fluid; he then must lie perfectly quiet for half an hour, and before the expiration of this he will be asleep. When he awakes in four to eight hours, he will be markedly improved.

If the dose is vomited, it should be at once repeated. Sometimes it will be necessary first to administer a small hypodermic of morphine, to insure the retention of the emetine." Again, on page 217: "The hemostatic effect is due to the relaxation of arterial tension, and also requires nauseant or emetic doses." And further, page 219: "A. L. Blesh has sometimes succeeded in having the grain-dose retained in cases of dysentery, by first partly anesthetizing the stomach with a single large dose of cocaine."

These extracts suffice to show that the merits of emetine in dysentery were fully recognized by the students of active principles long before the discovery of the entameba hystolytica permitted of its more direct utilization in the cases coming under this remedy. At present we know that the alkaloid acts more quickly and certainly when given subcutaneously, thereby avoiding the gastric irritation and nausea following oral administration. Indeed, it is the realization of this fact, that the full effects of emetine can be developed, without nausea, vomiting, or alimentary irritation, when it is given subcutaneously, that makes Rogers' work revolutionary.

Emetine, however, is only one of a large number of active principles that have been similarly studied. The enterprising clinician who turns to the alkaloidal books will find a genuine therapeutic gold-mine awaiting him there.

We have here evidence:

1. That the alkaloidists recognized the control exerted by ipecacuanha over certain forms of dysentery. These were not known at the time to depend upon the ameba, but since that time they have been traced to that parasite, and the explanation has been furnished of a radical difference which long ago was recognized, clinically, by the alkaloidists.

2. These men saw that the effects of ipecac were exerted despite its emetic action, which was to be prevented in order to secure the curative influence. Moreover, it had been shown in India that ipecac deprived of emetine did not exert the desired influence over dysentery.

3. The work had been carried as far as the developments of the time made possible. The best available ipecac preparation then was Merck's amorphous emetin, which contained about one-twelfth its weight of the alkaloid. Laboratory experiments had established the differences between emetine and cephaeline; but unfortunately here they stopped, and left to others the duty of sup-

plying the medical and pharmaceutical professions with chemically pure alkaloids.

While the alkaloidists here evidently lost an opportunity, for this the medical profession is to blame. Had they realized the scientific importance of the alkaloidal movement and supported and encouraged it properly, there would have been no such lapse. Unfortunately, they were led to see only the commercial phase of the matter, and did not apprehend the tremendous significance of the movement inaugurated by Burggraefe. When this appreciation comes, we shall see a rush for the alkaloidal textbooks on "Therapeutics" and "Practice" that will recall the opening of the Klondike gold fields—with results far outvaluing any metalliferous discovery.

Is emetine the most valuable of the nuggets brought to light by the alkaloidists?

It is to laugh!

There shall never be one lost good; what was shall be as before,

The evil is naught, is nil, is silence implying sound;
What was good shall be good, with for evil so much good more,

On earth the broken arc, in Heaven the perfect round.

—Robert Browning.

THE PROBLEM OF COLLECTIONS

Every physician should read carefully Mr. Brush's article upon collections printed elsewhere in this number. It will be followed by other papers upon the same subject, all of which, we hope, may draw out extended comment and free discussion.

We are particularly anxious to learn of the "systems" of those of the profession who are making good financially. Also we want to learn of the problems and difficulties which are troubling physicians in different sections of the country. Please write us freely on this subject, and if you can contribute anything to help another brother to financial success, do this with the same freedom you have always exercised in these columns in helping us all to therapeutic success.

We want samples of your statements and bill-forms; and if you have a "follow-up" system for poor-pay patients, or any unique schemes or plans for collection-service or book-keeping, let us have them also.

Now we are getting "right down to brass tacks." Help us, please, all you can. It is our purpose to pay more attention to the doctor's business problems, but in order to make this work effective it is essential that every one should do his share. What will you do?

Leading Articles

How a Great University Cares for Its 5000 Students

The Work of the Medical Staff of the University of Wisconsin

By MARVIN W. WALLACH, Madison, Wisconsin

"SCARLET-FEVER Closes Western College" was a headline appearing recently in many newspapers of the United States. The article told of students leaving school in a panic, spreading the disease in railroad trains, on their way home, and carrying it to distant corners of the state. What else could the president of the institution have done, when with every hour the telephone tinkled and a new case was reported? The worst handicap in the efforts to check the epidemic was ignorance of the source. It is in this and similar ways that 3,000,000 people become ill in our country each year, according to Professor Irving Fisher, of Yale University.

About a year ago the University of Wisconsin was threatened by the sudden breaking out among the student body of eight cases of virulent diphtheria. The University's board of health tacticians immediately sent the eight victims to the isolation-hospital and endeavored to discover where they caught the disease. Entrance health-records showed them to be persons of unusual vitality; they had attended no common classes, social affairs, or meeting-places, and lived relatively wide apart. Where, then, was the source? At last they were interrogated as to their boarding-places, and it was learned that all ate at one large dining-hall; not at the same tables, however. Thereupon the waiters were examined and cultures from their throats were made. One of the lot, a healthy man, turned out to be a diphtheria-carrier. Although in the best of health himself, he was hurried to the isolation-hospital, and no further cases of diphtheria occurred.

In the same institution, an epidemic of boils was traced to some wrestling-mats in the gymnasium. The clinical department caused

the infected mats to be destroyed, and thus for a time the common welfare was guarded.

These examples serve to illustrate how the spread of contagious and infectious diseases really can be prevented by the effective application of modern medical knowledge. At the University of Wisconsin, physicians are employed as are the proverbial Chinese doctors—to keep their charges well. The interest of the medical advisers begins on the day a student enters college.

The Physical Test on Entrance

Let us take the case of a new student—whom we will call David Shell—entering Wisconsin University as a freshman. After registering, our newcomer is handed an innocent-looking card reading, "Report for medical examination at 10 o'clock tomorrow." At the hour named, he presents himself, in company with some newly formed acquaintances, and is directed by a young lady, who is sitting before a lot of filing-cabinets, to walk "to the end of the hall, downstairs, and turn to the right." They enter the room indicated.

"Everybody strip!" is the order, and David strips.

Provided with coversheets and soft slippers, the young men are directed to a nearly-Turkish bathroom and told to wait their turn. David's name is called, and he is ordered to go into room No. 1. Here a young doctor asks him many intensely personal questions, prying open his mouth, picking his teeth, scraping his tongue, inspecting his body, and pummeling him all over. But this is not the end. On into chamber No. 2 goes the ambitious freshman, and here he is kneaded and hammered, made to punch a registering device, told to squeeze a grip-



Fig. 1. The Clinical Building, where the disease-fighters have their headquarters.

recorder, and invited to show how high a column of water he can raise by expelling his breath.

Yet the tests, which have been more thorough than those for a life-insurance examination, are not ended! Before an elaborate eye-testing device, he is shown a bewildering array of letters and figures; until at last the examiner comes to the conclusion that his vision is normal.

This is the famous eugenic test each entrant passes before courting Dame Education at this university; nevertheless, not more than four or five out of the vast intellectual body applying for admission are rejected.

What Is Accomplished?

What do these medical examinations accomplish? They fortify these new students with advice about their health and habits of life that will increase the efficiency of their academic efforts. After a student has entered, he may be admonished to return from time to time for examination, or may be invited to ask freely about the smallest trifle, there being no charge for consultation or treatment. Even minor operations are performed, although, of course, in more serious ailments, they are expected to consult an outside physician. Arrangements with the Madison General Hospital provide for domiciliary treatment, and the most favorable conditions for healing are procured, because the students have confidence in the adviser's freedom from economic pressure.

Strange as it may seem, the real reason for establishing the medical-inspection bureau was not so much that the management entertained a paternalistic regard for the students' health as to increase their "dollars-and-cents" efficiency. Every day of sickness averted means, to a student, several dollars saved, without counting the irreparable loss and the straining to catch up. Teachers all know how one uninterested pupil causes a drag in the recitation, while reports on class laggards often disclose a physical reason for the listless attitude.

Suppose David slumps after the first semester and wants to know what is wrong. He is warned that late hours, excessive smoking, and bolting of meals makes him dull. Not, perhaps, that any one of these indulgences is the cause, but the three in conjunction serve to impair his work. In fact, the majority of the doctors' routine is to advise students how best to order their lives. Once in a while, one known as a hypochondriac wofully enters the consultation room, fancying that something is wrong with his "digestive carburetors."

As the doctors have no interest in making money out of the patient, they give him



Fig. 2. The student undergoing the entrance physical examination.

a talk straight from the shoulder about his imaginary ills.

Research Work on the Student's Health

However, individual welfare is not the sole concern, and, so, each doctor of the university inspection-plant spends part of the year as a teacher, and part of the time in research work on student-health. Moreover, these "super" doctors control the rooming-houses, and particularly the toilets, halls, and recitation-rooms frequented by the student body. Beside, when contagious diseases are rife, war-measures can be instituted to squelch an epidemic. Through this mechanism, the spread of skin diseases had been traced to swimming-pools at Wisconsin University. Also, after many experiments, a bleaching powder was devised that will kill deleterious germs in the tanks. Cleaning gymnasium-suits and towels, likewise, is handled in a sanitary manner.

When the unique Badger University Exposition was held, in order that each department might show what it had done to entitle it to a place on the scroll of progress, the clinical research-people prepared a series of charts on vital health statistics. Comparing student illness by departments, the College of Agriculture showed the highest percentage at seasons; yet, running throughout the year, the engineers led, because of accidents in the shops. The curve for law students was low, as this is a postgraduate course and the mature men have become accustomed to Madison and student-life. Tonsillitis, bronchitis, and inflamed eyes were found to be exceedingly "popular" diseases through February and March; while November was the glorious month of football-sprains, bruises, and wounds.

Another graphic chart, which compared men and women in average health, showed that the males suffer from a greater array of maladies, owing to a lack of personal hygiene and to a more active life, which invites infections and accidents. Thanksgiving day produced horrible ravages! Immediately thereafter the clinical department announced an interesting increase in the number of appendicitis-cases. In a different way, small-pox outbreaks are guarded against by listing persons unvaccinated, and sometimes, 25

percent of the unprotected students in time of danger are at once advised how to gain immunity.

Between 85 and 95 percent of the whole registration come for advice at least once during the semester; while about 200 men are given corrective gymnastics under Doctor Elsom, of the department of physical education.

One-fifth of the men are excused from taking the strenuous military drill, because of abnormal conditions; while another one-fifth have constitutional defects more or less serious; these defects not incapacitating for study, but, by the doctor's advice, their courses are eased in minor details. Thus,

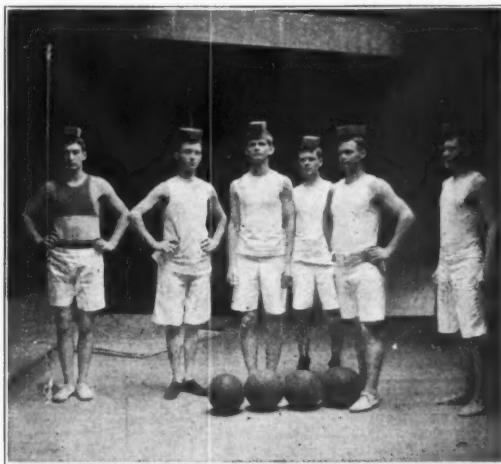
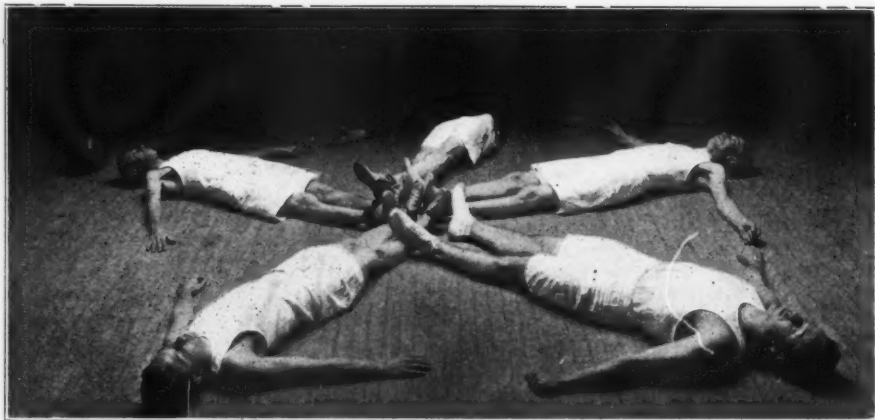
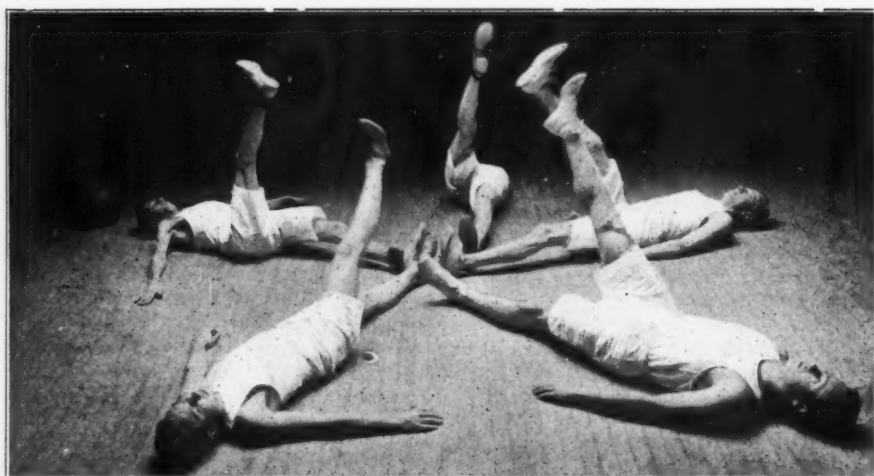


Fig. 3 Correcting round shoulders by carrying bricks on the head.

suppose a student has some heart lesion; then he or she is given an arrangement of studies that will obviate the necessity of climbing the hill to the main hall oftener than once a day, or will be told to walk around the hill in getting from one college to another.

The Volume of Work, and What It Costs

Last year the doctors served approximately 15,000 clinical visitors, though many of these returned for the second time or for continuous treatment. On the average, 159 patients a day are handled, including the football season; for, from the time a man enters until he leaves in any major sport, he is under the directive supervision of the clinical department. Judging from the private opinion of several athletes, the department seems to take little glory in anyone dying for the school!



Figs. 4 and 5. Weak heart requires special exercises, such as those shown in the upper photograph, together with rest at the moment of fatigue, as shown in the lower picture.

And the cost? Well, last year it cost about \$25,000 to run the clinic, or \$5.00 per capita. That includes the class-rooms downstairs, the sterilizing-room, and the laboratory for making cultures and raising "bugs," to aid in the delicate Wassermann tests for syphilis.

The University of Pennsylvania recently studied our Wisconsin methods in this vital health-department. Cornell also has seen the great possibilities in striving, for the laudable purpose of giving students the same care as do parents at home. In Cornell's infirmary, last year, the number of patients totaled 1053, of whom 140 were women; and consultations numbered 10,877, including 380 house-visits. In operation, the plan has

been considerably cheaper than at Wisconsin; but, at the same time, less has been attempted.

The University of California, at Berkeley, and the University of Wisconsin, at Madison, have worked out almost identical schemes. Before the School Hygiene Congress, Doctor Reinhardt, of the Pacific Coast institution, announced that "illness, and not idleness, was the main factor in undergraduate delinquency." At the California institution, for many years the students' guild provided hospital service.

In 1907, the University of California established an infirmary with 40 beds and 7 physicians. Since then, not a single epidemic of infectious disease has occurred among the students. The entire cost for 1912-1913

was \$25,436.05, covered by a student-fee of \$4.00, and used partly for sanitary gymnasium-lockers and swimming-tanks. Here it was also found advisable to use a germicide in the aquatic tanks, and then the water is re-utilized for irrigation and fire protection. In six months, there were 15,000 dispensary visits, 296 bed-patients, 66 operations, 589 vaccinations, and 620 typhoid inoculations. "Perhaps there does not exist at the present time," suggested Doctor Reinhardt, "a better example of what can be done for the maintenance of health in a large group at a small cost per capita than the California infirmary and allied activities."

Such are the far-reaching experiments three great institutions are conducting, and which, eventually, may lead us back to the scheme of the ancient Greeks, with state-employed physicians. August Boeck wrote a remarkable book, in the closing years of the eighteenth century, entitled, "Public Economy of Athens." In

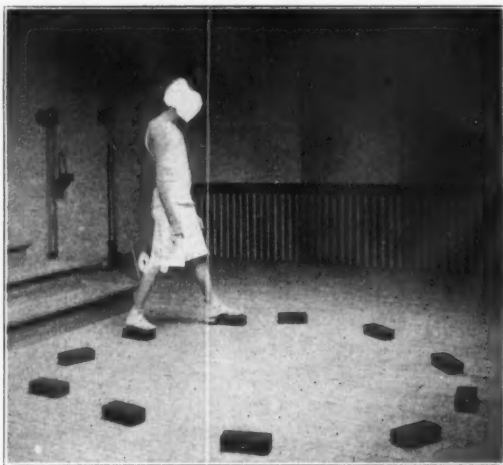


Fig. 6. Walking on bricks to teach muscular coordination.

this, he shows that our advocates of materia medica have not traveled far when we review some of their practices. Even the old Greek doctor wrote his prescriptions, not in dog Latin, but in dog Doric. He was not accounted an educated man, unless he had

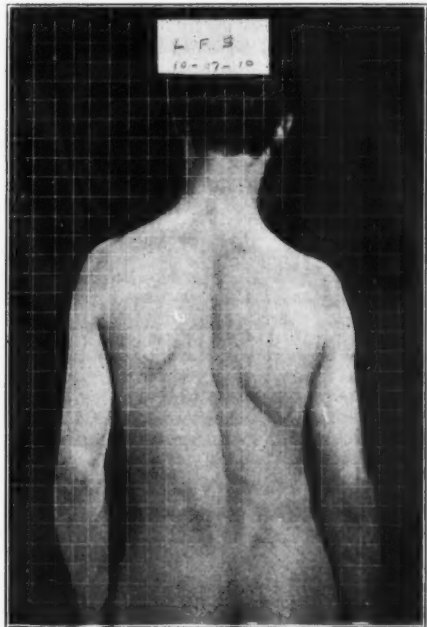


Fig. 7. Spinal curvature in a student, delineated by cross-ruled photograph.

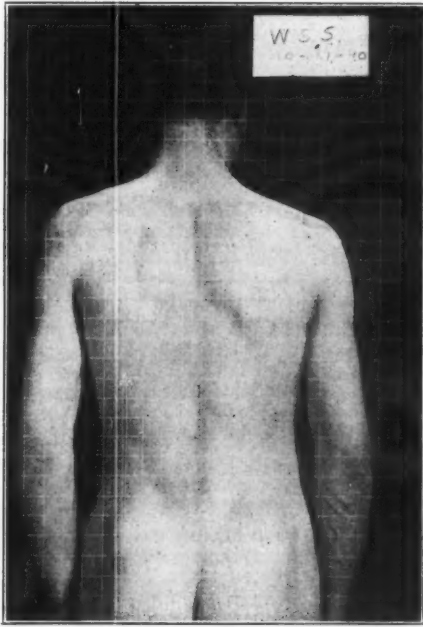


Fig. 8. Cross-ruled photograph to demonstrate presence or absence of spinal curvature.



Fig. 9. Correcting spinal curvature. This photograph was taken Oct. 20, 1911.

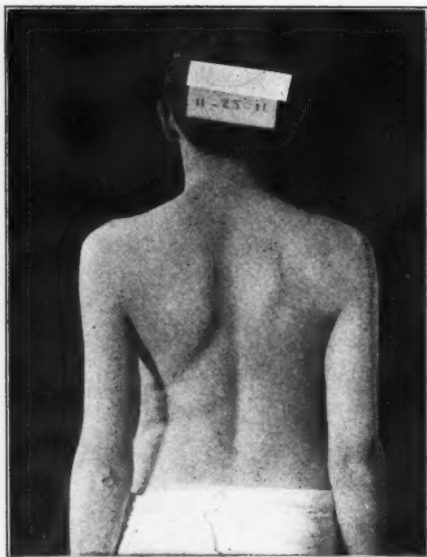


Fig. 10. Same student shown in Fig. 9, photograph taken Nov. 25, 1911.

finished himself in Ephesus or Miletus, and could write his advice in the foreign Dorian Greek.

But to return to the present—perhaps it is within the realm of possibility that the state may eventually do for all its citizens, in the matter of health, what some of our great universities are already doing for their

students. Can anyone doubt that the efficiency of our people would be enormously increased if every individual, from childhood to old age, could be taught "how to live"—how to adjust his physical resources to the demands which our complex modern civilization is laying upon him—and upon every one of us?

TO AMERICA*

By JOSEPH R. TAYLOR

I.

What names and thoughts shall stead thee in this hour

When issues, like an armed man, draw near:
Names allied not to fury or to fear,
Thoughts higher than the simple thought of power?
What wisdom lesson thee to pluck the flower
Of our land's honor from this nettle here—
Making the right in majesty appear,
Banning the clouds that ominously lower?

Ere yet the questions come, the answers wait:
Turn thought where'er she may, or feeling
grope,
Two figures clearly, holly arise:
They knew the hard decision big with fate,
They saw behind it all the changeless hope—
Lincoln the patient, Washington the wise!

*Published as an editorial in *The Chicago Herald*.

II.

Not as the war-mad nations, drunk and wild
With the bitter wine of their own fury, seek
The path to go, the word true men must speak
For injured right and justice sore defiled!
Sober with strength, by passion unbeguiled—
The future big, the tyrannous instant weak—
In threats not stern, for justice not too meek,
Confront the question—Freedom's best loved child!

So shalt thou find thy noblest gesture, find
The imperial word based on imperial right,
And the world's conscience shall attest the fact;
Nay, thou shalt be the trumpet of mankind,
And thou shalt see, however dark the night,
The path shine clear from righteous word to Act!

The Hygienic Accessories to Therapeutics

By BOARDMAN REED, M. D., Alhambra, California

THE people who in the past reached a high old age nearly all lived temperately and hygienically in most ways. They avoided stimulants and narcotics, or else were very sparing in their use, and especially, since most of them were poor, limited themselves to a simple diet, which consisted of but few articles, was moderate in quantity, and was taken at regular and not too frequent intervals; besides, during the active period of their lives, they generally took a sufficiency of moderate daily exercise in the open air. In fact, with the help of systematic exercise and simple diet alone, some of them who at the age of 40 or 50 were chronic dyspeptic, anemic weaklings were restored to normal tone and thereafter lived in good health to old age.

Improper Diet Causes Much Disease

Leading medical authorities everywhere now recognize and teach that dietetic excesses and a deficiency of physical exercise are the principal causes of the rapidly increasing prevalence of diseases of the heart, arteries, and kidneys, with their numerous complicating disorders. It is commonly known that very many of the affections of the alimentary tract, the liver, skin, joints, and the nervous system are attributable to the same faults, while even tuberculosis finds numerous victims who would have escaped the infection but for the depressing and health-lowering consequences of their lazy and selfindulgent habits.

These facts should lead us not to depend too exclusively upon drugs, or even drugs in association with the usual mechanical measures, alone, in treating disease, especially in its more chronic forms. Every chronic sufferer has long been guilty of one or more serious hygienic faults, which must be radically reformed before the most appropriate of our drug remedies can exert their curative effects.

Whatever an Eddyite healer might do, no educated medical man ever would try to cure a diabetic without first correcting his diet as to starch and sugar, while he was eating excessively and taking little or no exercise. Any physician would fail dismally who should attempt to heal a peptic ulcer, gastric or duodenal, while the patient persisted in using such irritants as mustard,

pepper or any of the spices or stronger condiments or acids or in eating much meat; and so with anyone who should essay to treat a case of Bright's disease by means of remedies without beginning by a reform of the patient's diet and whole course of living—his baths, periods of rest, exercise, and so on.

How a Colored Bishop Dieted

I once, many years ago, ordered a milk diet* for a corpulent colored bishop who had nephritis and evidently had been grossly overfed. Some time later I found him enjoying a generous repast of ice-cream and cake. He explained that he had been taking regularly the four quarts of milk ordered and did not suppose that a little dessert extra would hurt him.

In the days of the patriarchs, when people ate to live—and lived simply—there were, probably, no fancy cooks, as at present, able to concoct such toothsome desserts that no gourmand could resist the temptation to partake generously of them, no matter how overloaded his stomach already had become. Now it is very different; nearly everybody who has the price overeats, and many, not being obliged to work, take practically no muscular exercise. The present almost universal abuse of condiments produces very generally an abnormally large appetite, so that this is no longer a reliable guide as to the amount of nourishment really required, and the sight and odor of a rich, fragrant dessert easily overtempts most persons often after they have eaten more than enough. The consequence is that the majority of our chronic diseases are the direct or indirect results of overeating and underexercising combined, although bodily exercise renders much more food both necessary and safe. Then, sedentary people ordinarily drink too little of water or any fluid, their beverages being largely limited to tea and coffee, taken with their meals and too often made to do the work of the saliva for washing down the half-chewed boluses of food. Even the lighter tart wines, when used in strict moderation, possibly do less mischief in the aggregate. It fortunately no longer is fashionable to indulge inordinately in the alcoholics, and it now is quite vulgar to get drunk; but there

*That was before the publication of the book on diabetes by von Noorden, who condemns the milk diet in such cases.

still are plenty of tea-topers, especially among the women, with whom it is *de riguer* to provide tea with sweets for their afternoon-calls and to expect the same on their return calls.

Remove the Cause—Gluttony!

The indispensable prerequisite in therapeutics is, to remove the cause whenever possible, but we have no drugs that can cure sloth and gluttony. Discipline can do much to overcome these faults in childhood and youth, and what the parents have left undone must devolve later upon the family physician. The proper remedies are obvious, and the doctors should only need to have their attention called to them.

The successful physician now ought to be a hygienist as well as a good therapist. He should see to it that his sedentary patients are not being tempted either by their own previous self-indulgent habits or by their wives and cooks, despite diet-tables and good

resolutions, to bite off more than they can chew or actually do chew thoroughly, and he should ascertain by the appropriate tests whether such patients are not eating more than they can digest or possibly even digesting more than they are able to assimilate and utilize in their activities. It is the excess of food which lingers undigested in the intestines or, even though digested in whole or in part, that clogs the emunctories and breeds a host of derangements, including obesity, and finally leads to disease and premature death.

It may be unfashionable and probably less profitable to order a restricted diet and exercise for wealthy patients who are indolent and overfed, but it would do them more good than any amount of medicine alone; and to the glory of our profession be it said, that it is the only one whose honest members are constantly giving advice for the good of their patrons which takes money out of their own pockets.

The Relation Between Dementia Præcox and Certain Toxic Amines

By BAYARD HOLMES, M. D., Chicago, Illinois

THE great importance of infection and messmatism, or parasitism, which exists in the flora and fauna of the intestinal tract, finds its explanation in the physiological activity of the excretions, or byproducts, of these organisms. The *bothrioccephalus latus* is not as dangerous while alive as when it is dead; some toxic elements are derived from the dead worm that are more destructive to the host than those which the live worm furnishes.

One of the most toxic and therefore clinically most interesting products of bacterial parasitism is found in the amines, resulting from the breaking-down of proteins, through their consumption by bacteria, and this suggests that the adaptation and limitation of microorganisms to one special form of nutriment furnishes an inspiring subject for speculative and experimental evolution.

The amines are known both in gaseous and in liquid condition; some are soluble and some insoluble in water; some are of quite simple molecular form, while others are very complicated and highly evolved. But we are interested in their molecular makeup only so far as structure determines physiologic action or pathologic potency.

The most toxic amines are those derived from phenylalanine, tyrosine, tryptophane, and histidine as the result of bacterial growth in the intestinal contents, of which they form a considerable part. While the bacillus aminophilus does not, in the absence of glucose and other more favorable nutrients, attack these bases in an acid medium in the intestine, this microbe produces betainazolyethylamine in a medium containing 0.3 percent lactic acid. (Berthelot and Bertrand, 1913.) This most poisonous amine is not produced when rats are fed upon food containing the bacillus aminophilus alone, nor when fed on food containing the proteus vulgaris alone; but, if rats are fed on food containing both these organisms, they are attacked by diarrhea and die in from four to eight days. The contents of the intestines of the dead rats are rich in betainazolyethylamine.

The liver is the eliminator of all such toxic amines, even the isolated liver of an animal has this power. The fatal dose of a toxic amine is first determined for, say, a rabbit. Next, double or even quadruple of the dose thus found is passed through an isolated

liver of a rabbit, and then a rabbit of the same weight is injected with this. Ewins and Laidlow have shown that p-hydroxyphenylethylamine is transformed, by perfusion through an isolated liver, into p-hydroxyphenyl acetic acid. A toxic dose injected into the vein of an extremity not only is harmless when injected into the portal vein, but the dose may be many times increased before it produces the slightest symptom. (Oehme, *Arch. f. exp. Path. u. Phar.*, 1913, LXXII, p. 76.)

Probably most of the toxic amines produced in the intestinal tract are destroyed in the liver, but conditions may arise that limit or arrest this hepatic function. Such an error Mellanby (*Lancet*, 1911 (2), p. 8) has connected with that strange disease of youth known as cyclic vomiting, believing it to be the escape of betaiminazolyethylamine through the liver.

Breath and Skin Odor in Dementia Præcox

Anyone who has seen the acute onset of dementia præcox or even one of the relapses can not fail to have noticed the acetone-breath, the aromatic odor of perspiration, and the novel orange blossom odor of the urine at such a time. Thus is dementia præcox similar to cyclic vomiting.

In connection with the large number of amines that result from intestinal putrefaction, there are some reliable observations on the clinical side that are supported by biochemical studies. Metchnikoff's sour-milk treatment, the grape-cure, the cheese-cure, fasting-cures, and many other analogous treatments are supported by sound chemical findings. The yeast-cells consume most of the toxic amines (Ehrlich, Pistschimuka, in *Bericht. d. Deut. Chem. Gesell.*, 1912, XLV, p. 1006) and reduce them to harmless alcohols, while laxatives carry them away and agar entangles them.

There exists an interesting relation between the pressor action of the aromatic amines and their toxicity. The most actively toxic amines are the cyclic ones with a side chain of two or more carbon atoms. When, for example, the side chain of hordenine is lengthened from three carbon atoms to four or five carbon atoms, pressor action diminishes and the toxicity increases tenfold. (von Braun and Deutsch, *Ber. d. Deut. Chem. Gesell.*, 1912, XLV, p. 2504.)

In dementia præcox, the toxin has a depressor action; for, the blood pressure is always below normal and can not be raised by adrenalin injections.

The monamines produce effects similar to those caused by stimulation of the sympathetic nervous system; they have, therefore, been termed sympathomimetic. Adrenalin is the most powerful; p-hydroxyphenylethylamine, phenylethylamine, isoamylamine, and isobutylamine follow in declining order. As the amine groups rise, the pressor action increases until hexylamines are reached and then it declines in the heptylamines, and still more in the octylamines.

A Comparison with Adrenalin

The introduction of the benzene-ring in phenylethylamine greatly increases the pressor action. This base has the same carbon skeleton as that of adrenalin! The several toxic amines produce many symptoms of like effects. Thus p-hydroxyphenylethylamine has one-twentieth the pressor potency of adrenalin, and in doses of 1 or 2 milligrams it produces a sudden rise of arterial pressure, of a very transitory nature, the nonpregnant cat's uterus is relaxed, the pregnant cat's uterus is contracted, and the salivary secretion is greatly increased by it. When applied to mucous surfaces, it causes very little constriction of blood-vessels. In even enormous doses (100 mgm.), it produced no glycosuria in a cat. (Dale and Dixon, *Jour. Physiol.*, 1909, XXXIX, p. 25.)

In dementia præcox, at certain stages, salivation is a distressing symptom. We are uncertain, from lack of any observation, what relation, in this disease, salivation has to blood pressure or to the presence of glycaemia.

The relation of the pressor toxic amines to high blood pressure and arteriosclerosis has long been suspected, but recently the biochemists have attacked the problem.

Since tyrosine is present in the intestinal tract, and inasmuch as fecal bacteria produce p-hydroxyphenylethylamine when grown (in the tube) on such media, this amine has been the one selected for study by many investigators. It has the greatest pressor potency and at the same time is the most toxic. Up to the present, little has been accomplished.

This substance is also found in ergot; however, the presumption of some investigators that it is the most important constituent of ergot has been shown to be fallacious by Guggenheim. (*Ther. Monats.*, 1912, XXVI, p. 795.)

The diamines furnish bases of the most complex and paradoxical physiologic properties. Betaiminazolyethylamine has received the most thorough investigation. This sub-

stance is also present in ergot. It has a depressor action, but a remarkably strong contractive action upon the isolated nonpregnant uterus of the cat. When perfused with Ringer's solution to which 1-25,000,000th (or even 1-250,000,000th) of betainnazolyethylamine has been added, the nonpregnant isolated uterus is contracted. *The muscular coats of the bronchioles, however, are the most sensitive to this base.* Large guinea-pigs are killed in a few minutes by an injection of 0.5 mg. of betainnazolyethylamine, and they die by asphyxia, the result of the contraction of the bronchioles.

When this action was studied in a surviving guinea-pig's lung, it was found that the contraction of the bronchioles is permanently abolished by adrenalin, which is not the case in the intact animal. (Baehr and Pick, *Arch. f. exp. Path. u. Phar.*, 1913, LXXIV, p. 41.) This phenomenon has some analogy to anaphylactic shock, in which death occurs in much the same way as it does from Witte's peptone. The lungs are found permanently distended. Poplieski thinks that the betainnazolyethylamine acts by liberating a hypothetical vasodilatin. It also may be related to the "depressor substance" which Abelous and Bardier found in the urine and termed urohypotensine.

Poisoning That Suggests Anaphylaxis

The striking resemblance of betainnazolyethylamine poisoning to anaphylactic shock can be seen, not only in the condition of the lungs, but also in the fall of the body-temperature characteristic of milder degrees of shock. (Dale and Laidlow, 1911.) This base also is nonpoisonous to dogs, and dogs rarely exhibit anaphylactic phenomena. Pfeiffer (*Zeit. f. Im. u. Exp. Ther.*, 1911, p. 133) thinks that in the final solution of the anaphylaxis-problem betainnazolyethylamine will surely be a very important factor.

The interference of adrenalin with the muscle-contracting action of betainnazolyethylamine is one of the interference-phenomena that are so pregnant with therapeutic application as well as toxicologic studies in this borderland of biochemistry. If we show, in a scheme of four tests, the reactions of only three of the bases with which we are best acquainted, the reader will see at a glance the relation between pressor potency and the three muscle reactions, which in a larger comparison of a greater number of tests becomes confusing to any but the biochemic investigator.

COMPARISON OF PRESSOR POTENCY AND MUSCLE REACTIONS

	Raises blood pressure	Contracts peripheral blood-vessel	Contracts ox's coronary artery	Contracts non-pregnant uterus of cat
Adrenalin.....	+	+	—	—
P-hydroxyphenylethylamine.....	+	+	+	—
Betainnazolyethylamine.....	—	+	+	+

In addition to these remarkable actions, it must be noted that the pulmonary arterioles are constricted by betainnazolyethylamine and the *pulmonary* blood pressure is raised.

Take into consideration now the similar action of ergot and the fact that ergot contains this base, and the solution of that anomaly is approached. Betainnazolyethylamine has a stimulating action upon the salivary glands, and so it has on the pancreas, though in a less degree; but, it is not like the action of secretine, because it is abolished by a small dose of atropine.

For our argument, the source of this base showing biochemical reactions so like the symptoms of dementia præcox is an important factor.

Since the first production of betainnazolyethylamine ($C_8H_9N_3$), or 4-betaaminoethylglyoxaline, by Windaus and Vogt, (*Ber. d. Deut. Chem. Gesell.*, 1907, LXX, p. 3691), by synthesis, it has been obtained from many sources, and in all of which it probably results from bacterial action. In the mucosa of the intestine, it was found by Barges and Dale (1911), who abstracted it from the crude solution of secretine; to which it imparted a depressant action. In the intestinal wall, its formation is due, probably, to a bacillus, isolated by Mellanby and Twort (*Jour. Physiol.*, 1912, XLV, p. 53) capable of converting histidine into betainnazolyethylamine. This base has been isolated from putrid soy-beans by Yoshimura, who found an analogous base in the Japanese beverage called tamari-shoyu. (*Biochem. Zeit.*, 1910, XVIII, p. 16.)

The recognition of the betainnazolyethylamine for clinical purposes is sometimes quite easy. The stool, rendered alkaline with sodium carbonate, is shaken up with three ounces of ether. The stool must not contain any oil and the patient should not have received any laxative or cathartic except an aperient water or saline. If the stool is very solid it will be necessary to add sufficient

water to break it up. The shaking must continue for an hour or two and the ether must then be pipetted off and filtered through dry filter paper. It is then placed in a shallow dish, and evaporated at room temperature.

If the residue left after evaporation of the ether contains as much as one part in a thousand of its bulk of betainazolyethylamine, it may be recognized by a simple physiologic test. A good sized, and perfectly clean, new steel pen is dipped in this residue and one or two scratches, not deep enough to draw blood, are made up and down the forearm. In a very short time large wheals or herpes rise up along the scratch, sometimes a millimeter high and the width of half a centimeter or more. These herpes reach their acme in about five minutes, are red and itch fiercely,

and disappear after a half hour at most. (Eppinger and Gutmann, *Zeit. f. klin. Med.*, 1913, 78, p. 210-12.) This test has been successful in urticaria and asthma from betainazolyethylamine intoxication. (See also Mutch, *Quart. Jour. Med.*, July, 1914, 7, p. 433.)

Thus we see that the toxin that produces symptoms most like those of dementia præcox originates from the bacterial action of a special microorganism upon a particular protein, under special conditions.

One would be led, then, to further researches on the chemistry of the intestinal tract, in an effort to solve this darkest and this saddest problem that confronts our profession and the forty-eight boards of administration of this, our United States—the problem of dementia præcox.

The Land of the Montezumas

Impressions of Twenty-four Years of Professional Life in Mexico

By G. E. BROOKS, M. D., Las Cruces, New Mexico

LATE one October afternoon in the year 1889, a slow mixed train, on a narrow-gauge railroad, moved leisurely out from Nuevo Laredo, Mexico. The wide, shallow river that joins two of the great republics of the world had been crossed; the stars-and-stripes were left beyond the Rio Grande, the red, white and green floated idly from the custom-house, the musical language of Cervantes fell on my ear. I was in a foreign country.

I looked, with curious interest, upon a people graceful, courteous, languid, yet, withal very talkative. From the car-window, one could see, standing beside low-thatched cottages, dark women, *rebosas* wound gracefully about their heads, their little ones held in the attitude of a Raphael Madonna. Many of the houses, as they came into view, were of Pompeian color, some a dull-blue, the exact shade found on the ornaments of the Egyptian mummies. Everywhere there was something that bespoke a mysterious past. Already the country was teeming with wonders. I looked without at the various features of interest, and within the coach at the still more interesting people. Soon "las Sierras" were dimly seen through the purple mist. By and by the talking became less excitative, the gesticulations

more reposeful, until at last, like tired children, my fellow travelers drowsed away into sleep.

I sat there, feeling very much a stranger in a strange land. I wondered what would be the relationship of a foreign "medico" in this country; wondered whether *ars medica*, as understood in the United States, would have aught to offer to a people who looked as though they would respond to other influences, if true, and give back goodness for good. My thoughts were so filled that I slept not and felt the long-drawnout journey all too brief when, at the end of thirteen hours, I heard the porter's call of "Monter-r-rey," sounded with the trilled r of the Italian.

It was truly a foreign country, and all about me seemed strange and incomprehensible.

From the slow train, the passengers were transferred to a mule-car, which in its onward trip, fairly rattled over the cobblestones, the poor beasts of burden mercilessly lashed by the callous driver. There were no "societies for the prevention of cruelty to animals" in Mexico in those days.

From Monterey, I immediately proceeded to my destination, Topo-Chico—Hot Springs—three miles distant from Monterey. It was not long that I had an office in both

places, devoting to the Monterey office certain hours each day.

Mexicans Easy to Deal With

My professional work brought me in close touch with the populace and conditions. The Mexican people are easy to deal with, if one shows kindness and proves efficiency. The conditions were more difficult to meet. Monterey, the most important city of that section, was a small, sleepy place. There were no electric lights, no paved streets, no water-works; the sanitary conditions were deplorable. Nevertheless, it possessed many attractions, and, like all the other Mexican cities, was a social center.

A few days after my arrival, I attended the inaugural ball given in honor of the Governor, just elected, or, rather, appointed by the President, Don Porfirio Diaz. The new governor was the late lamented General Bernardo Reyes, whose tragic ending occurred in Mexico City at the beginning of the "decena tragica"—ten-days' tragedy—when President Madero was deposed and murdered. Under Governor Reyes, the state of Nuevo Leon rapidly progressed, and within a few months electric lights illumined the city. That city was taking forward steps. A large smelter, built by Americans, soon was in operation. A railroad from Monterey to Tampico was built. A railroad from Eagle Pass, over Torreon, to Monterey was built later by the International Mexican Company. Some sixty days after my arrival, I was called to Mexico City, to aid in the inauguration of a hospital service on the Mexican National line, which ran from Laredo, on the Texas border, to Mexico City, the capital. Previous to that time, no provision had been made for caring for the employees during illness or in the event of accidents.

How Disease Was Fought by a Progressive Governor

Epidemics of smallpox, scarlet-fever, and yellow-fever were frequent in Monterey, as then little attention was paid to sanitation. However, after two epidemics of yellow-fever, the disease having been brought from Tampico, on the Gulf of Mexico, the authorities inaugurated a cleanout, cleanup, and keep-clean policy, supported by a rigid quarantine against Tampico. The mortality during the yellow-fever epidemic was about 35 percent, and the higher classes of the wealthy and cultured people of the city were not exempt. Gradually boards of health were established, sanitary methods enforced, and the medical

profession was trying to keep pace with the great strides made in other directions.

Meanwhile, Mexico has made marvelous improvements in every direction. Electric cars, paved streets, and cleanliness are the order of the day in the Aztec land. Epidemics have almost disappeared, spacious modern hospitals are to be found in all sections, where years ago conditions were quite different. There are many Mexican physicians and surgeons thoroughly educated in the healing art, and the National School of Medicine and Surgery, in Mexico City, has sent out men who have developed into highly competent physicians and skilful surgeons. They are performing the work formerly done by foreigners. But, these foreign physicians have been a great incentive to progress in all branches of medicine and surgery.

A Tribute to a Great American Doctor

Right here, if I were capable, I should like to pay a tribute to a distinguished and much-loved physician—an American, I mean Dr. Newell Browne, scion of an old aristocratic family of Kentucky. Doctor Browne located in Mexico, and there his clear head, strong character, and love of progress were greatly appreciated. He settled in the quaint old town Montemorelos, in the state of Nuevo Leon, situated in the semitropics. There, in that equable climate, under the bluest of skies, with the soft gulf-breezes blowing among the orange-trees, Doctor Browne went through the city, the villages, and over rough mountain-trails, on his mission of mercy—mercy, in the sense that he carried enlightenment everywhere, besides giving alms to the poor. And he made the path easier for those foreign physicians who might come after him.

Nor was this all. Doctor Browne's thought was not confined selfishly to his own profession. It was his observing eye and discerning mind that foresaw the wondrous opportunities for the "orange-belt," in the center of which lies Montemorelos. Seeing that the Mexican orange thrived there without cultivation, he concluded that every kind of citrus fruit could be grown there. Accordingly, his son-in-law, a senator when General Reyes was governor, and one of the leading and most progressive men of Mexico, Don Arnulfo Berlanga, began to plant "quinta" after "quinta" with orange-, lemon-, and grapefruit-trees.

Through his influence, a prominent orange-grower of southern California came and engaged extensively in citrus-fruit culture.

The man referred to is L. N. Stuart, recognized as one of the best authorities on the cultivation of the different varieties of oranges. Navel, Satsuma, blood-, Parson Brown, and Mediterranean-Sweet oranges grow there in such perfection that the Montemorelos oranges are fast becoming famous throughout Mexico and even the United States. Travelers declare them to be superior to the oranges of Italy, California, and Florida.

Another American physician, finding that pecans are indigenous to the soil of that region, conceived the idea of alternating orange- and pecan-trees; and now he owns a grove that promises much better profits than oranges alone. These orange- and pecan-groves have remained undisturbed by the passing armies of the revolutionists, because Montemorelos was not considered a strategic point.

Mexican Resources

While we owe so much to Mexico, I trust that we have given at least a moiety in return for all its kindness, patronage, and respect. No one can live in Mexico, if he live rightly, without loving the people; and no other country ever seems quite so interesting afterward. For Mexico, the land of sunshine and flowers, the home of hospitality and song, is an empire with the greatest possibilities on earth. Her magnificent resources are practically inexhaustible; she has mines of fabulous wealth; she owns primeval forests; in fact, the story of the riches of the republic to the south has never been told. They have been her glory, but also her misfortune.

After I had been in Mexico a number of years, I made an extensive tour through the extreme southern end. It would require volumes to write of the many things of interest seen. Near Puebla de Zaragoza, I found the pyramid of Cholula, the period of which is unknown. This pyramid was there when the Aztecs came to Cholula. They heard the legend about it, which is, that it was built to reach heaven, but the builders were destroyed by fire, because of the anger of the gods. The trees growing over it attest the antiquity of this pyramid, upon which once stood a temple, whose never dying fires illuminated the city. Still further south I saw an ancient sphinx.

From thence I journeyed to Oaxaca, a land that possesses the most delightful climate on the face of the earth. Oaxaca is called the "birthplace of heroes," Benito Juarez and Porfirio Diaz, and others having been cradled there.

While in Oaxaca, I had quite an interesting interview with a gentleman who had spent many years in Egypt. He said: "If I were to get the curios I brought from Egypt mixed up with those I have bought in Mexico, I should be unable to distinguish one from the other."

The origin of Oaxaca is veiled in as much mystery as are the nearby ruins of Mitla, which have been, at once, the joy and the despair of archeologists. The ruins of the Acropolis still stand in Athens, pointing backward to a definite period; the fall of Babylon was trumpeted to the world; but no sign points to the builders of the temples of Mitla, Palenque and Uxal, no sound echoes from the dead past to give them voice—they stand alone in their mystery. It is, however, of the deepest interest to know that we possess the "rosetta stone"—the one possible key—which was found in the south, and a hope is entertained that the hieroglyphs of Mitla may yet be deciphered.

If all were told of the beauty, sublimity, and wonders of Mexico, the story would not be credited; so, this effort will be limited to just a few points of interest. For poetic beauty, the valley of Anahuac, in the midst of which stands Mexico City, is perhaps the highlight of the great republic. It so chanced that during my southern trip, while I sojourned in Mexico City, President Diaz was spending the winter in his palace, in the city, and the Castle of Chapultepec was open to visitors.

How Secretary Root Was Entertained

The day I stood upon the balcony of Chapultepec was a perfect one, and I looked out upon the fairest scene on earth. While the grandeur was dazzling, it was the pure poetry of it all that sank into the consciousness, to remain forever. The magnificent city was like a queen enthroned, the towers of the cathedral rose in the sunlight, and far away the "White Woman," Iztaccihuatl, seemed to whisper "Peace." The whole scene was a glory that can never fade.

Chapultepec Castle has been the successive home of all the emperors and presidents of the land. It was at Chapultepec that President Diaz so royally entertained Secretary Root and his family. The castle, already splendid, was refurnished throughout at an expense of one hundred thousand dollars. The Mexicans have a proverbial greeting to visitors, as they enter their homes: "This house is yours."

This became literally true for the time being with Secretary Root, for the entire castle, servants, carriages, and cars, were at the

disposal of the Secretary and family, while President Diaz and his attendants moved to the national palace. A great fete was given in honor of the American viceroy at an expense that would make European receptions to their royalty appear tame. Artificial lakes were made; not far away is a natural river that winds its way through the oldest cypress grove in the world. Electric lights were arranged among these trees and along the borders of the lakes, with an artistic effect perhaps never before seen. The principal band of Mexico City, second to none in the world, assisted by other bands, gave forth classical strains that echoed through the mighty grove, and one wondered, if the shade of Montezuma should return, would he remember that he was the first emperor that ever dwelt on the Hill of Chapultepec. The entire series of entertainments to Secretary Root were on a regal scale, and were emphasized by that ease, refinement, culture, and elegance so characteristic of the educated classes in Mexico—indeed, more or less characteristic of all classes.

An Example of Hospitality

Another example of hospitality, as fine as that of President Diaz's, came under my notice. One day an anxious Mexican came to my office and informed me that an American was very sick with fever, down by the railroad. The Mexican was a daily laborer. I went with him and found the American

lying on the only bed the hut afforded. The Mexicans had slept on the floor, had given this stranger of their food, and had done everything for his comfort that their limited store could provide. The American was unknown to them and had stopped there, exhausted by his tramp from Tampico and the fever, of which he already was a victim.

The Mexicans are as artistic as hospitable. They are inherently artistic, reflecting, at times, an influence that suggests the pristine glory of Alexandria. Their love for the beautiful is manifested, from the flowers in tin cans around their huts to a Titian, at Tzintzuntzan, presented by Philip II of Spain. More than the price of the "Angelus" has been offered for Titian's "Entombment," but the people refuse to allow it to be taken from their country at any price. Likewise the millions of J. Pierpont Morgan failed to acquire a masterpiece from the cathedral of Mexico City.

But for the revolutionary movements, Mexico, the land of infinite possibilities, would now stand on a par with the leading nations of the world. Oh, that someone with the strength of a Cromwell and the gentleness of a Mazzini would arise and unify all factions in Mexico, harmonize all the good that is in her people, start them on the path to personal freedom and universal liberty. Could this be done, in less than a quarter of a century the whole world would wake up and wonder. *Ojala!*

Circumcision in the Female

Its Necessity, and How to Perform It

By BENJAMIN E. DAWSON, A. M., M. D., Kansas City, Missouri

President, Eclectic Medical University

EDITORIAL NOTE.—We have had several inquiries from readers regarding this operation, especially as to the method of performing it. In the most interesting paper which follows, Doctor Dawson answers all our correspondents' questions. Also, he shows that intervention of this kind is imperatively required in many conditions not generally understood.

BAKER BROWN, nearly half a century ago, recognizing the disastrous reflexes and nervous disturbances, often caused by the clitoris, boldly amputated the offending organ with excellent results in some cases, while in others great disaster followed and the work fell into disrepute. Naturally surgical attention to the clitoris sank into oblivion. Within the last two decades this much-abused and neglected organ has received some consideration, and now it is much better understood and the proper surgery applied when required.

A large number of physicians fail to realize the importance of the proper condition of the foreskin in the male; that in order to avoid the dangers of convulsions, eczema, paralysis, constipation, tuberculosis, locomotor ataxia, rheumatism, idiocy, insanity, lust, and all its consequences, the prepuce must be completely loosened; if too long, amputated; if too tight, slit open.

A much larger number of physicians are seemingly ignorant of the fact that females have an organ anatomically corresponding to the penis in the male. They are both

erectile; each consists of a glans, a body and two crura; the glans in each is partly covered by a prepuce with a frenum attached below; each has corpora cavernosa, separated by an incomplete septum; each is supplied by nerve filaments from the pudic nerve and hypogastric plexus; each produces a cheesy substance (smegma), which hardens under an adherent prepuce.

The clitoris is more richly supplied with nerve filaments than any other organ in the body in proportion to its size. The same category of diseases having their origin in nerve-waste, caused by a pathological foreskin in the male, may be duplicated in the female, from practically the same cause, and, in addition, other diseases peculiar to females. Chorea, chlorosis, hysteria, and various nervous disturbances, nearly always have their origin in a faulty condition of the hood of the clitoris. The neglect of the clitoris is fraught with such disastrous results that the sin of omission, its neglect, which is almost universal, is painful to contemplate.

Importance of the Sympathetic Nerve

In the study of the waste and repair of the sympathetic nerve and the law of reflexes, we delve into a mine rich with precious, practical gems of truth; we harvest in a field rich with the golden grain of valuable knowledge. This study would readily show why a neglected clitoris is prolific of so much mischief.

The sympathetic nerve concerns itself with the life of the viscera; it presides over the visceral economy. The sympathetic system performs the vital functions which are independent of mind and present to us the idea of life. It dominates absorption, secretion, sensation, nutrition, peristalsis and functions of the sexual organs. Pathology in tissues supplied by the sympathetic nerves is manifested by disordered function; in tissues supplied by the cerebrospinal nerves, by pain. Pathological conditions, flashing out the most disastrous reflexes, are usually subconscious. Doctors are not easily educated out of well-worn ruts. Because there is no pain, no gross pathology in the clitoris, it is ignored by many otherwise careful diagnosticians.

The Causes and Consequences of Genital Irritation

The blood stream is that which does all bodily repair, heals all diseases, removes all pathologic conditions, induces growth and sustains life. It is of such vast importance that its circulation is dominated by the vaso-

motor system, a combination of both sympathetic and cerebrospinal nerves. An increased supply of blood to any organ invites function.

The blood supply to any organ may be increased by either one of two methods, external irritation or internal emotions. A cinder in the eye will summon an increased flow of blood to the lacrimal glands, and tears come into the eyes; a message of sorrow or joy, that sweeps over the deep vibrant chords of the soul, will produce the same result.

There is no exception to this rule, even the sexual organs being included. Internal emotions may elicit a desire to functionate in these organs; so may external irritation. Masturbation in a child under the age of puberty is not provoked by internal emotions. It is downright cruelty to punish a little child for masturbating. It would be as reasonable to punish one for crying with a grain of sand in the eye, or for being fidgety with ants under his clothing.

Reflexes travel along the line of least resistance. Irritation in the sexual organs, therefore, may reach the mental or moral faculties, resulting in imbecility, sexual perversion or moral degeneracy. Many neuroses and even psychoses have their origin in pathological conditions of the hood of the clitoris.

The girls have been sadly neglected; therefore, I make a plea in their behalf. I feel an impulse to cry out against the shameful neglect of the clitoris and hood.

A Hooded Clitoris as a Factor in Marasmus

Some two months since, a child, two and a half years old, was brought to me from Ottawa, Kansas. It presented a bad case of marasmus, malnutrition, anemia. There was little development; the lower limbs hanging almost as useless as strings. The child made no effort at vocal articulation. The clitoris was completely snowed under with an adherent hood. The adhesions were broken up and circumcision performed. The mother was instructed to retract the hood each day, in order to prevent adhesions reforming. This was neglected to some extent. The child was brought back, since I began this article. While the hood had adhered to the clitoris again, yet the improvement in the babe's condition is very gratifying. Her muscles have filled out; her thighs enlarged; she can bear her weight on the limbs and use them in taking a few steps; she speaks plainly several words; a slight pinkish tint has flushed the previously chalky white skin, and there is a

marvelous improvement in her general appearance. Under a general anesthetic the adhesions were again broken up. This child will recover.

Other Cases Relieved by Circumcision

A few months ago a little babe, three or four weeks old, had colic each time after taking the bottle. Examination revealed a hooded clitoris. The indicated work promptly and permanently cured her.

A girl baby, two years of age, had been troubled all her life with furunculosis, anuria, and malnutrition. She had been treated by different doctors for different diseases, but with no benefit. The clitoris was completely buried beneath an adherent hood. In a few hours after circumcision the red, angry boils on her face had perceptibly paled; in thirty-six hours they were dried up. Her kidneys began to act normally, and she was transformed from a cross, peevish, discontented child into a state of perpetual sunshine.

A girl sixteen years of age, well developed but neurotic, had been troubled with nocturnal enuresis from babyhood. Circumcision, with some other indicated orificial work, at once stopped this embarrassing condition.

Another, Sarah C., seven years old; a bright, beautiful child, well-nourished, a masturbator. She was brought to me to have this evil habit corrected. Examination showed she needed circumcision, to relieve constant external irritation, which was exciting the sexual passion.

A widow of forty-six came into my office, heavily veiled and requested a private interview. She handed me a copy of *The Journal of Orificial Surgery*, with a request that I read page 83. On this page was an article giving the symptoms of nymphomania caused by a hooded clitoris. With deep mortification, she said she had been bound in chains by this demon since she was a little girl, and that I was the first person to whom she had ever mentioned it. She requested permission to remain veiled, while I circumcised her under local anesthesia. She afterward expressed her heartfelt gratitude for her release.

A girl of ten, following an injury to the hip, presented all the characteristic symptoms of hip-joint disease—tenderness, heat, swelling, pain in the knee with soreness in the hip-joint in pressing upon the knee, also, from pressing against the trochanter; slight elongation of the limb, with a tendency to throw the knee across the other limb. This case was presented to a doctor, who was an

officialist, as well as a general surgeon. He found the clitoris in a very irritable condition and its hood firmly adherent. Following the needed attention to the clitoris, a few weeks in bed, without even using extension upon the limb, restored the limb to a perfectly normal state.

How to Circumcise the Female

Since beginning this paper, a surgeon of considerable prominence, with twenty years' experience, at the head of a reputable hospital, casually dropped into my office. I mentioned the subject, with my usual enthusiasm, when he asked what I meant by circumcision; was it amputating the clitoris? Another physician, with an experience of more than a score of years, acknowledged to me that he never saw a clitoris to recognize it. This reminds me that my paper would be incomplete without a description of the technic.

Before undertaking this work it is needful that one should have a clear conception of a normal clitoris and hood. Only two days ago a physician brought a lady to me for circumcision. Everything ready, I started to do the work, when a normal clitoris smilingly said, "Keep off the grass, please."

In a normal clitoris and hood the point of the glans is exposed and the complete retraction of the hood is easily accomplished. There is no smegma or irritable condition found between them. No tension of the hood is found upon stretching the parts laterally with the thumbs.

If the hood is so long as to cover the glans completely, it should be partly amputated; if adhesions exist, they should be thoroughly loosened; where smegma is found, it should be removed.

Circumcision is performed by cutting a V-shaped piece from the hood over the center of the clitoris. If very redundant, it will require a large piece; if tight, only a slit will be necessary. Grasp the hood in the center with Pratt's plug forceps or a pointed hemostat; lift it up from the clitoris and, with scissors, cut each side of the forceps, the cuts meeting above the point of the forceps, taking out a V from the hood. With a No. 0 or No. 1 plain catgut suture, take a stitch in the point of the V, uniting the under mucous membrane to the outer skin, just as in circumcision in the male. Usually an additional stitch will be required on either side to join the skin and mucous membrane. Where strong adhesions have been broken up, it will be necessary to slide the hood up each

day to prevent their reforming. What is preferable is to put a drop of flexible collodion on the clitoris, holding the hood up until it dries. It will then require no further attention.

This work can be done with local anesthesia. Cleanse the parts thoroughly and place a piece of cotton, saturated with a 10-

percent solution of cocaine, over the hood and clitoris. After a few minutes you can inject a 4-percent solution of the cocaine with a hypodermic syringe in a fold of the hood pinched up between the thumb and finger. Massage for a moment and proceed with the work. Abbott's anesthetic will answer well, and in many ways is preferable to cocaine.

Thyroidectomy Under Local Anesthesia

Why the Local Anesthetic Is Preferred, and How It Is Used

By BENJAMIN H. BREAKSTONE, B. S., M. D., Chicago, Illinois

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STATISTICS will show that thyroidectomy, particularly in Basedow-Graves disease, when performed under general anesthesia, is a rather dangerous operation; and it is safe to say that the resulting deaths are in the neighborhood of 50 percent. The writer, some years ago, in one of the largest hospitals of Chicago, saw three thyroidectomies performed in one day and every one of the subjects died within a very short time. On the other hand, the mortality under local anesthesia, to put it conservatively, is much less than 5 percent. Thus, it will be seen that here is one operation where the choice always should be in favor of local anesthesia.

In order to get the best results, many factors must be considered as to when and exactly how to operate; and they concern (1) the patient, and (2) the method of operating, which includes (a) preparation of the field of operation, (b) the anesthetic used, (c) the technic.

When to Operate

Especially in exophthalmic goiter is it very important to select the proper time for operating. These patients all have their periods of improvement and periods of decline. Therefore, if we watch the patient for several months, we can soon discover these alternating waves of condition. As a rule they are regular. The length of the wave and its periodicity varies with each individual case, and, if the surgeon cooperates with the family physician the two can soon discover the period of decline, in which the patient is melancholy and morose, her heart beating very rapidly, her respiration shallow, and she is almost, if not entirely, sick in bed; whereas, in the improvement period, she

feels rather happy, ambitious, and in good spirits, the cardiac symptoms are barely noticeable, and exophthalmos is diminished.

It frequently has happened that, when the operation had been performed near the end of the period of decline, improvement followed, and we thought that the operation was a successful one. In these cases, however, the period of improvement would begin at that particular time and the patient would improve regardless of the operation. However, the period of improvement in these cases will be prolonged, for the reason that the patient is getting a good rest and careful supervision as to diet, elimination, and so on, with the added psychic effect of the operation. Many patients who have been operated upon during the period of decline have experienced bad results; whereas, had they been operated upon during the improvement period, the results might have been better.

Preparation of the Patient

Aside from the fact of operating at the most auspicious time, the patient should be thoroughly prepared; and the things aimed at should be the prevention of shock and of hemorrhage.

The psychic element in these cases is very great, and, to avoid shock, the patient should be prepared either by Crile's anociassociation method or by the judicious use of H-M-C. In this way, the patient will go through the operation without becoming materially excited and without making resistance. She also should have pleasant company, to engender pleasant thoughts. These things tend strongly to prevent shock. In many cases, the writer prefers H-M-C to the anociassociation-method, for the reason that the period of preparation is not as long. This is

especially a factor in patients of very nervous temperament or of moderate means who cannot afford special nurses during the period of preparation.

Hemorrhage occurs quite frequently in thyroidectomy, especially venous hemorrhage, and often it is very difficult to control. Before the operation, a complete analysis of the blood should be made, especially as regards the percentage of hemoglobin and the coagulability. Most of the patients affected with Basedow-Graves disease are anemic, and therefore should receive tonic treatment for a long period before the operation.* It is not advisable to operate when the hemoglobin is less than 50 percent. Most of the patients who have died after the operation have had less than 50 percent of hemoglobin. The coagulability of the blood is a very important consideration and should be thoroughly investigated before operating. Calcium chloride, ergot, suprarenal extract, and more recently pituitrin have been used as preventive remedies for hemorrhage during thyroidectomy; but, since the advent of horse-serum, this is by far the best preventive to employ. In the absence of normal horse-serum, a moderate dose of diphtheria-antitoxin may be used. Of course, it is needless here to dwell upon the customary preparation of the patient, such as keeping the intestinal and urinary tract as clean as possible; the exhibition, in the presence of any urinary infection, of appropriate antiseptics (such as hexamethylentetramine) and diuretics; and abstention from food for at least six hours previous to the operation if a general anesthetic is to be used.

Method of Operating

The best method of operating is, of course, the one that will accomplish the most radical extirpation in an aseptic manner, in the shortest time, with the fewest instruments, in the simplest way, with the least amount of hemorrhage, and the minimum amount of shock, so that no complications may follow.

The field of operation should be prepared in the customary way, avoiding strong antiseptics, and it should be plenty large, extending, preferably, from the angle of the jaw to the middle of the chest. As a routine, before the incision is made, tincture of iodine should be painted over the entire area.

For the anesthesia, the choice is certainly in favor of a local anesthetic; however, if for any reason this is excluded, then nitrous oxide and oxygen is by far the safest general anesthetic. In view of the fact that the field of

operation is near the mouth and nose, the anesthetic must be given in an aseptic manner.

The local anesthetic that the writer has used most frequently is a 2-percent solution of cocaine hydrochloride, freshly prepared.* The solution should be introduced along the line of the incision, under the skin, and a topical application of a 1-percent cocaine solution in the field of operation be made. A 1-percent solution of novocaine may be used with equal success, and a 1-2-percent solution of it be used as a topical application after the incision is made.

The Technic

The technic described in the ordinary textbooks is the one which the writer generally follows; preferring the initial incision to be made across the neck, horizontal to the median line, dissecting the flaps upward and downward, so that a sufficient amount of muscle is exposed and the muscle-fibers are separated, in order to expose the entire gland. This incision is especially preferred, inasmuch as most of these operations are in women who desire a cosmetic result, while the scar resulting from this incision will conform to the folds of the skin of the neck and will not be very noticeable.

If the goiter is cystic, the capsule with the cyst can be removed in such a way that the rest of the gland may remain. If, however, the operation is for exophthalmic goiter, then both lobes of the gland must be removed, leaving the isthmus. But, if the tumor is from the isthmus of the gland, then the operation is quite difficult, since it is frequently necessary to dissect below the clavicle and behind the sternum; particularly is this necessary in cases of pressure upon the larynx or trachea, causing difficulty of breathing or of phonation; still, at least one-eighth of the gland should be left, so that we may not have myxedema following the operation.

Postoperative Treatment

It is not necessary, as a rule, to establish drainage. For this reason a collodion dressing is applied to keep the wound sterile for ten days, at which time the skin sutures are removed. If, however, in infected cases drainage is required, a separate opening should be made at the most dependent part of the field of operation, through which a rubber tube is passed from within the wound and left protruding some distance; the

*See my article on use of cocaine as a local anesthetic in *THE AMERICAN JOURNAL OF CLINICAL MEDICINE*, and *The American Journal of Ophthalmology and Oto-Laryngology*.

dressings then can be placed around this tube in such a manner that the drainage will not contaminate the line of incision. Great care should be exercised in having the bandage applied so as not to cause pressure upon the larynx.

If, in emergency, a rapid operation is required and it becomes necessary to remove all thyroid tissue, or, if by accident, the entire thyroid tissue is removed and myxedema ensues, then feeding the patient with thyroid becomes necessary.

The Rational Treatment of the Summer Diarrheas of Infants

By THOMAS G. ATKINSON, M. D., L. R. C. P. (London), Chicago, Illinois

THE modern viewpoint regards all the clinical varieties of infantile intestinal infection (gastroenteritis, cholera infantum, enterocolitis, and ileocolitis) as essentially the same in etiology, pathology, and course, the differences exhibited being determined solely by the portion of the tract attacked, the virulence of the attack, and the depth to which the mucosa is involved. The bacterial findings are the same in each of the varieties, the dominant organism being the Shiga bacillus.

Clinically, the topographical forms hardly ever are sharply defined, but either overlap or succeed each other. Consequently, the general principles of treatment are the same for all, varying only in detailed application, according to the part of the tract which the treatment is designed to reach.

Before proceeding to the discussion of the infections proper, we will consider, briefly, the condition known as acute indigestion.

Acute Indigestion

In acute indigestion, it is true, there is a disturbance in the gastric and intestinal flora, owing to the derangement of the digestive function; nevertheless, the pathogenic bacteria do not actually get the upper hand, and under proper treatment the normal bacterial condition is quickly re-established. However, a continued and unrelieved indigestion may, very readily, pass into an actual pathogenic infection.

At first, it is almost impossible to differentiate an acute intestinal indigestion from a more serious gastrointestinal infection, inasmuch as the initial symptoms are substantially the same in both; consisting, as they do, in a rise in temperature, a rapid pulse, vomiting, abdominal pain, diarrhea—the stools containing undigested food—and sometimes convulsions.

Diagnosis can be made only after twenty-four hours under proper treatment, when an

acute indigestion will subside and all symptoms ameliorate, whereas, a true infection will grow steadily worse, in spite of the best treatment, with all the symptoms aggravated.

The treatment, therefore, at the beginning is the same in either case, as follows:

Food should be completely withheld for twenty-four hours. If the stomach be full when the child is first seen, it is well to empty it by means of an emetic. Then the gastrointestinal tract should be cleaned out thoroughly by giving small doses, 1-10 grain, of calomel, aromatized to make them agreeable to the child, to which it is excellent practice to add minute doses of the bile salts—to be followed the next morning by a little sweetened laxative saline. The lower bowel may be washed out with warm water.

As a rule, this simple treatment will serve to control an attack of simple acute indigestion, so that on the second day feeding may be cautiously resumed.

However, should it be found that after the first two hours' treatment the patient's temperature remains unchanged or even rises, while the diarrhea grows worse, both as to quality and quantity, then we must assume that we are dealing with a more serious intestinal infection, and, consequently, prepare to resort to more vigorous measures.

Gastroenteritis

Gastroenteritis is a true infection. Its morbid element is, that there obtains a predominance of the pathogenic bacteria, chief of which is the Shiga bacillus, or the bacillus dysentericus, a germ not normally found in the bowel.

The onset of gastroenteritis is usually, but not always, more violent than that of acute indigestion. As a rule there are more marked evidences of toxemia, accompanied by great prostration from the outset. The stools quickly become mucous and foul-smelling,

finally changing to the typical rice-water stools—which, in fact, are nothing but toxins in solution in body-fluids. The child loses weight rapidly, owing to the loss of fluids, and the fontanelle is depressed.

The initial treatment is the same as already described under acute indigestion. However, after the first twenty-four hours we must, of course, support the child's strength with adequate nourishment.

In breast-fed babies, the intervals between feedings should be doubled, or trebled if necessary, and in the intervals the child should receive whey and barley-water. It also should frequently receive a drink of plain boiled water. The bottle-fed baby should be taken off fresh milk until cured. On the second day, it should be given long-interval feedings of whey, buttermilk, and barley-water, to which may be added albumen-water; the intervals being lessened as the progress may suggest. When the diarrhea has stopped, the feeding may be returned gradually to the normal schedule.

The following will be found an excellent drink for these little patients, being both refreshing and antiseptic:

Lactic acid.....grs. 40
Orange-flower water.....oz. 1
Distilled water, enough to make.....ozs. 8
Give a teaspoonful, according to conditions.

Drug-treatment is of secondary importance in the acute stages of intestinal infection; indeed, the less medicines we give, the better. Even in the matter of catharsis, having once thoroughly cleaned out the bowel, the latter should not thereafter be disturbed until the stools show signs of returning to normal. Above all, no astringents or opiates should be given during this stage, since such measures seriously impair the defensive capacity of the bowel itself. The only remedial agent that should be given from start to finish is the bacillus bulgaricus, which may be administered in tablet form. The tablets may be dissolved in water (one tablet in a teaspoonful of water, four or five times a day) or, if preferred, the culture can be employed in the form of bouillon diluted with water.

As soon as the bowels have been well cleaned out and the stools begin to assume their normal condition, we may begin to give remedies designed to check the diarrhea and to stimulate healing of the intestine; the sulphocarbolates being best suited for this purpose. A good practice is, to give 1-2 to 1 grain of the compound sulphocarbolates every two or three hours, or else, copper arsenite, 1-1000 grain, at the same intervals.

There is no essential difference between gastroenteritis and cholera infantum, except in degree of severity.

Cholera infantum is a very severe form of gastroenteritis, in which all the symptoms are greatly intensified, especially the general prostration and the diarrhea. Its treatment is precisely the same as that of gastroenteritis.

Ileocolitis

In this form of intestinal infection, the lower bowel is the chief seat of the disease; otherwise, its etiology and pathology are essentially the same as are those of the other varieties. Its general symptomatology is about the same as that of gastroenteritis, only, that the fever is not so high nor the general toxemia so great, because absorption is less in the lower than in the upper intestine. On the other hand, the pain is more marked, owing to the involvement of the peritoneum. The comparatively low temperature and small degree of toxemia, however, should not mislead us as to the severity of the disease.

The *catarrhal type* generally is primary, and is the most benign form. Its clinical course resembles gastroenteritis, except for the severe abdominal pain and the very mucous character of the stools, which may even be streaked with blood.

The *ulcerative type* is, as a rule, secondary, and represents the exhausted condition following a long struggle with the disease. It runs a course almost like typhoid fever, being, in fact, often called the typhoid fever of infancy. There is ulceration of the lymph-glands and patches of the ileum, with frothy, mucopurulent stools. The little patient becomes exhausted and poisoned and lapses into low delirium, usually dying of toxosis and exhaustion.

The *membranous type* is the most violent of all. Not only the mucous but also the sub-mucous membrane is rapidly destroyed and sloughs away, appearing in the stools as shreds. The temperature goes very high (106° F.) because of the denuded state of the absorbing surface. Delirium and convulsions, finally passing into coma, are the culminating symptoms.

The general treatment of ileocolitis is the same as that laid down under the other forms of the disease. It is in the local management that it differs, because we here not only are obliged to keep the intestinal tract clinically aseptic, but also to combat the pathology of the bowel itself.

In the catarrhal form, no local injections should be given, since they are likely to

check the defensive secretion of the bowel. In the ulcerative and membranous type, there is no defensive secretion to check; consequently, the colon should be flushed, every two or three hours during the acute stage, with a suspension of bulgarian bacillus (galactenzyme), dissolving the tablets in the proportion of two or three to an ounce of warm, sterile water. In severe cases, an occasional injection of silver nitrate, 1 part in 500 or 1000 parts of warm soft water, may be administered with advantage.

Injections should not be given with the high colonic tube, as its introduction irritates an already inflamed membrane and, so, aggravates its condition.

The ordinary rectal tube should be employed, the colon being reached by elevating the buttocks and, if necessary, gently manipulating the abdomen toward the colon, meanwhile holding the sides of the buttocks together, to prevent the fluid from being ejected. While the intestine is distended with fluid, gentle manipulation is not likely to cause traumatism.

The diet in ileocolitis is substantially the same as in the other forms, except that decomposable albumens should be eliminated as much as possible. It is better, therefore, not even to feed whey or albumin-water during the acute stage, but, rather, to confine the child to barley-water or buttermilk. When convalescence sets in, the return to normal diet should be exceedingly gradual and cautious, predigested concentrated foods being fed for a long while.

Nursing-Care of the Patient

The personal care of the child is a large factor in the successful management of intestinal infections. Wherever practicable, it is advisable to have a trained nurse on duty; preferably one whose temperament and experience have specially fitted her for nursing children. But, of course, this is not always practicable, in which case it devolves upon the doctor to act as head nurse, with some member of the family (mostly, the mother) as his deputy, to whom he must give full, explicit, and detailed directions for the care of the little patient.

The three prime principles in this duty are: *quiet, cleanliness, regularity*. Quiet for the child's body and mind; cleanliness of the person; regularity in carrying out the various procedures included in the treatment.

The necessity of quiet is put first, because it must govern in carrying out the other two. It is for this reason that the services of a

trained nurse are so desirable, because her training has given her the knack of performing the offices for the sick without seriously disturbing the patient.

The child is to be kept in bed—or at least undressed and lying down—even from the time the nature of the trouble is merely suspected, and is not to be taken up at all, except in the case of a breast-fed child for the purpose of nursing it. Otherwise, the little patient is not to be taken up or handled more than is absolutely necessary to the carrying out of the treatment. Walking the room with the child in the arms is to be utterly forbidden; neither should the attention of the child be engaged or stimulated; it is better left completely alone. The room is to be kept cool and quiet and darkened, with plenty of fresh air circulating through it, but no direct draft upon the child's body. The little patient should be just sufficiently clad and covered to insure comfort. In hot weather, nothing more is needed than a thin muslin slip.

Scrupulous cleanliness of the child's person must be maintained, both general and local. It should receive a tepid bath at least twice a day during the entire course of the disease, and even oftener if it can be done without unduly disturbing the child. Whether this bath shall take the form of a tub-bath or a sponging is a matter to be determined by the condition of the patient and by the circumstances of the case. If the child is profoundly prostrated, it is better not to subject it to the exertion of a tub-bath, but to administer a sponging; so, also, if there are no proper facilities for a tub-bath and no one who knows how to give it properly.

The bed or cot on which the child lies should have its coverings changed frequently. It should never lie in a cradle, but on a spring-mattress, where it has plenty of ventilation. And, what is most important of all, the napkins must be closely watched and removed just as soon as they are soiled. They should immediately be thrown into a pail containing the following:

Phenol solution, 5 percent.....	ozs. 4
Common salt.....	ozs. 2
Water.....	gal. 1

After that, they must be boiled for two hours in a similar solution. On removing a soiled napkin the child's parts should be carefully cleaned with warm water to which a little mild alkaline antiseptic has been added.

Whatever therapeutic measures are determined upon, regularity in their applica-

tion is a *sine qua non* to their success. Unless they are to be regularly and faithfully carried out, they may just as well be omitted. Feeding, bathing, enemas, hypodermoclyses, medication, everything must be done on clock-time and at definite intervals, if it is to be of any avail.

It is to be borne in mind that the body of the patient is the battleground of a desperate and critical fight and that a single failure to bring provisions or arms or reinforcements to the field at the proper moment may be suffi-

cient to turn the tide of the combat. Needless to say, of course, that every procedure must be carried out thoroughly and skilfully. In the absence of trained assistance, it is better that the more difficult procedures, such as colonic injections, hypodermoclyses, and the like, be carried out by the doctor himself. And, as previously intimated, everything must be done with the minimum of disturbance and irritation to the patient. Special care is to be taken, in handling the child, not to knead or traumatize the abdomen.

Acute Gastroenteritis*

And Its Successful Management

By GEORGE H. CANDLER, M. D., Chicago, Illinois

Author of "Everyday Diseases of Children"

THERE can be no question that the more serious forms of enteric disease can be avoided to a great extent (and controlled promptly and positively when they do occur) by modern methods of medication. Many of the cases of "summer diarrhea" which terminate fatally could have been easily controlled in their early stages. Even cholera infantum in its typical form (which after all is rarely encountered) will yield readily to proper therapeutic measure during the first twenty-four hours.

Children who have been prone to looseness of the bowels, during the months of July, August, and September, are, under the care of the well-informed practitioner, enabled to pass from spring to winter without any marked disturbance of the alimentary tract. A certain increase in the number or altered consistency of the stools is to be looked for when the fruit season arrives, and with the advent of spring and "green things to eat" the average human being finds his bowels moving more freely. This is desirable and normal. Two or even three loose stools per day should not be regarded as pathological, but at the first sign of enteric disorder—colicky pain, frequent passage of thin, watery or pasty, stinking stools—treatment should be instituted.

The Importance of Early Recognition

The doctor should impress upon his clientele the positive necessity for prompt treatment. He should especially explain to young mothers

the importance of an early recognition of acute enteritis, pointing out the fact that in many cases life has been sacrificed simply because the doctor arrived too late. Often the little patient, stricken twenty-four or thirty-six hours prior with acute gastroenteritis (or cholera infantum), will succumb to cerebral congestion after diarrhea has been checked and other distinctive features of the disease eliminated. Others pass into the sleep that knows no waking from sheer exhaustion, within the same period. If early and correct treatment is called for more urgently in any one disorder than another it is in acute gastroenteritis.

This disease is very commonly and mistakenly termed cholera infantum, the latter being an entirely different and much more serious malady. The writer has not seen half a dozen cases of true cholera infantum in five years. Acute gastroenteritis is, however, omnipresent. The symptoms vary in severity and are known to every practitioner. The bacteria discovered in a given case may be numerous—streptococcus, the colon bacillus, staphylococcus, bacillus proteus, pyocyaneus, and so on—any one or a variety of these microorganisms being distinguishable in the stools. As, under medication, the frequency of the latter lessens, the severity of the symptoms moderates.

There Are Two Forms of the Disorder

Two forms of the disorder are recognizable, one mild, the other severe.

In the first form, the child (who may be teething) shows signs of malassimilation: food passes through the bowel imperfectly

*Reprinted from Doctor Candler's "Every-Day Diseases of Children," Second Edition, which is published by The Abbott Press, Chicago. The accompanying article illustrates the extremely practical character of the material contained in this volume. Price \$1.00. We can supply it.

digested, accompanied by much gas, and attacks of vomiting occur. After a day or two the vomiting and stools become more frequent, the latter bearing either a greenish brown slime or consisting of a greenish or dirty-gray fluid.

Still later there may be much mucus streaked with blood. The smell of such stools is most offensive. Throughout, the child is fretful and complains of cramping pains, or, if too young to do this, draws its legs up and screams. The skin is hot and usually dry and the temperature in mild cases rises one to two degrees. Occasionally, vomiting is altogether absent; in others, diarrhea does not appear for some hours after vomiting and other evidences of gastrointestinal inflammation.

In the severe forms, all these conditions are accentuated. The temperature may reach 103° F., and as many as fifteen or twenty stools be voided in the twenty-four hours. I have noticed that such cases usually begin with obstinate vomiting and the passage of one or two stools containing much undigested food. The vomitus at first contains sour food-material and later is a foul fluid containing mucus and bile. As the child is extremely thirsty and craves water, the abundance of the fluid can easily be accounted for.

This disease affects alike the bottle- or breast-fed infant and the child on mixed diet. While improper feeding is without doubt the usual cause, heat and bacterial invasion of an exhausted system are alone responsible in many instances.

The disease must be looked upon as mildly infectious and the stools and vomited matter should be carefully disinfected. The affected child may gradually waste and become almost a skeleton or, after a few days, the disorder abating, recover rapidly. In very marked cases death may take place within forty-eight hours. In some cases two or more such attacks occur in the one season and not at all infrequently enterocolitis sets up.

Treatment of Acute Gastroenteritis

Knowing, as we do, that the whole chain of symptoms is due to the presence of undesirable material and bacteria and that no gross pathological lesions exist, treatment is really simple, but to be effective it must be of a positive character.

As in cholera nostras, we have to get rid, as fast as we can, of the fermenting, germ-breeding, toxic bowel-contents. Further, being aware of the presence in the rugæ of the

intestine of millions of pathological microorganisms, we must not put into the alimentary tract material favoring germ-propagation. We must also exhibit, in effective doses, intestinal antiseptics of an astringent character.

The first step is to stop all food and wash out the lower bowel with a plain, cool, salt or mildly alkaline antiseptic solution. If the vomiting is marked, pass a catheter into the stomach and wash it out; as this is not always feasible, give a mild solution of magnesium sulphate slightly acidulated and sweetened with saccharin. Saline laxative, one small teaspoonful to the half pint of water, works perfectly. It is well to give gr. 1-10 to gr. 1-6 of calomel and gr. 1-12 to gr. 1-64 of podophyllin half-hourly for four to six doses, according to age of child, to secure a thorough emptying of the intestine and increased hepatic activity. This is the "first thought." One dose should be given before anything else is done and the physician himself (unless a competent attendant is present) should then give the enema. One hour after the last dose of calomel, exhibit a fairly full draught of saline laxative. This serves to flush the already cleaning intestine and leaves the mucosa in good condition to withstand bacteria and absorb such nutritive material as is allowed.

During this time, if the skin is hot and dry, have the child sponged hourly and covered lightly with a thin flannel garment. It is to be kept in a cool shady place. Barley-water, made thin, will prove the best drink at this period. Every two hours at least one grain of the combined sulphocarbolates of lime, sodium and zinc should be given—preferably in solution. A mentholated saccharinated tablet is obtainable which serves excellently. In bottle-fed infants this solution may be given from the bottle, as also may the saline laxative draughts. In older children, the powder, mixed with a little sugar of milk, may be given on the tongue and a drink of boiled (or barley) water follow.

I have found the Bulgarian bacillus invaluable; the free administration of a pure, virile culture absolutely inhibits the further growth of undesirable microorganisms and enables us to give the child its natural nutrient—milk—feeling certain that it will be assimilated. The physician must not forget, however, that many of the so-called "buttermilks" and "buttermilk tablets" do not contain the bacillus *bulgaricus*. Galactenzyme presents this and symbiotic organisms and should be regarded as an active remedial agent, not a mere "milk-

sourer." As a matter of fact, even when a good "buttermilk" is being used, galactenzyme should be given also.

Very minute doses of atropine (or hyoscyamine) are of great service during the first day: gr. 1-250 may be dissolved in six teaspoonfuls of water and a teaspoonful given every two hours.

The Child Improves

If this treatment is carried out, the next day will reveal a recovering patient. But here, care means everything; the sulphocarbolates must be continued, the lower bowel flushed and the mouth kept clean. Albumen water, barley water containing a few drops of fresh beef juice, or a few spoonfuls of a well-cooked cereal gruel may be given. Zwieback is safe and well liked by most children. Under ordinary circumstances this diet may be slowly but surely added to until normal feeding again prevails.

Brucine, gr. 1-12S, or berberine hydrochloride, gr. 1-64, may be given as a bitter tonic for a few days. It is also a good plan to institute about the fourth day another course of calomel and podophyllin; or in place of the latter irisoid, gr. 1-6, may be given hourly for four hours. If the stools are markedly offensive and clay-colored, add bilein, gr. 1-12, to every other dose. The effect is immediately noticeable.

In a few cases hyperacidity is marked; here calomel and soda (aa. gr. 1-4) act rapidly. Should the condition persist, a few doses of "neutral cordial" will promptly prove corrective.

It should not be forgotten that in all these cases more or less local congestion exists; atropine is our best remedy for localized congestion, bringing, as it does, the blood to the surface. Moreover, this drug stops the excessive secretion of mucus—another desirable feature. It is always well to give fairly full doses of atropine at once when the skin is cold and pale; cactoid and brucine (aa. gr. 1-64) will perhaps prove the best subsequent stimulants.

If the disease has progressed and weakness is marked, nuclein is strongly indicated; six to eight drops should be given under the tongue thrice daily. The "nucleinated phosphates" are perhaps even more useful. It is in these cases, too, that rectal injections of beef juice and starch water prove so valuable.

Where the system has been deprived of large amounts of serum, enteroclysis is imperative, and here decinormal salt solution with two drams of prepared blood to the pint proves especially valuable.

It is well in all well-marked cases to give thin, clear beef- or chicken-bouillon for the first day or two after normal conditions are restored, returning to milk very gradually.

Aconitine in Summer Diseases

With Suggestions for Supplementary Medication

By CHARLES F. LYNCH, M. D., Terre Haute, Indiana

WITH the arrival of the summer months, the practitioner is certain to be confronted by a large number of the usual type of summer-complaint cases. These acute inflammations in the child or in the adult are accompanied by high fever, loss of appetite, and frequently nausea, vomiting, and diarrhea.

"All these symptoms are but a manifestation of the underlying pathological condition produced as the result of irritation of the mucous membrane of the bowel by severe toxic substances. The mucosa of the intestine of the infant being more delicate and more responsive to irritating poisons, explains the greater frequency and the more severe character of these summer diarrheas in the child as compared with the adult.

If we were able to see into the stomach and bowel of the little sufferer from an attack of

this fatal summer diarrhea, we should find that the normal pinkish-colored mucous membrane has been replaced by a red, angry-appearing surface, the result of the reaction to the irritating poisons generated by bacteria carried into the mouth with the food or otherwise. Some of this poisonous material is absorbed into the blood stream and, acting upon the delicate nervous system and the sensitive heat-centers, causes pronounced nervous phenomena and the development of a high febrile temperature.

In the treatment of this condition, there is one remedy that stands out preeminently at the head of the list, and is one that we should all thoroughly familiarize ourselves with at this time. Indications for the use of aconitine during the summer months are particularly frequent, and especially is this true in handling

these acute toxemias in infants and children. A most effective remedy in the adult, aconitine is doubly so in the child, and its use cannot be too highly recommended.

Summer Diarrheas Mean Poisoning

Summer diarrheas are, as a matter of fact, nearly always due to poisoning. The poison involved is manufactured in the intestinal canal of the child by bacteria that have been taken in with milk or other foods. In cases where milk is given that has not been kept under proper conditions, it often not only will carry the germs, but also a large dose of their toxins, at the time it enters the gastrointestinal tube.

The first indication, then, in handling these cases will be, to clean out the stomach and bowel, and thus remove these poison-manufacturing germs and as much as possible of their toxic products. Next, we must shut off the source of supply of the toxic bodies. This is best accomplished by withholding all food for twenty-four or forty-eight hours, merely giving the child oatmeal-gruel, barley-water or other noninjurious liquid diet. For the purpose of cleaning out the intestinal canal, fractional doses of calomel (gr. 1-10) every ten minutes for ten or twelve doses is very effective. The calomel with aromatics tablet is ideal for this purpose. This is advantageously followed twelve hours later by a dose of castor-oil.

Next—Neutralize the Toxins

By these measures, we eradicate the source of the poisons and shut off their supply to the body. The next step in treatment is, to administer such medicaments as will neutralize and limit the effects of the toxins that have already been absorbed, and also such as tend to promote the repair of the damage that already has been done. And here is where the efficiency of aconitine becomes pronounced, and its judicious and intelligent employment will give most pleasing results.

Aconitine is an agent that tends to equalize the circulation and relieve the congestion of acutely inflamed parts. It is an agent that dissipates the fury of the storm before the damage is done, and breaks its force. It is a mildly acting remedy and produces its effects without destructive reactions on the part of the tissues. There is no other single remedy as powerful in limiting the harmful effects of an acute inflammation as aconitine, properly given. It is a remedy which presents its best effects when administered at the onset of these inflammatory phenomena.

Indeed, this drug is not indicated, as a rule, after the lesion has become deep-seated and marked tissue change has taken place. The time for aconitine is at the starting, and here it exerts a most beneficial influence.

This drug is preeminently the child's sedative. Under its influence, the high fever is reduced, the pores of the skin are opened, and the elimination of toxic materials and radiation of heat are promoted. Acting upon other emunctories of the body, aconitine also stimulates elimination of the poisons that are destroying the vital energies and the delicate tissues of the patient. The action of the kidneys is promoted, relief of congestion in the mucous membrane of the intestine restores normal function there, and in every direction the action of the drug is beneficial, because in line with indications.

The "Rapid Thready Pulse," and Why

In these acute gastrointestinal irritations, the heart generally is wildly reacting to the influence of the toxic materials carried in the blood stream. As a result, the patient will present a rapid, hard, thready pulse. This is the cardinal indication for the use of aconitine in children as well as in grownups. The typical aconitine-pulse will be seen with especial frequency in the child. In its soothing action upon the irritable heart, this drug is a most pleasing therapeutic weapon. It quiets the hypersensitiveness, relaxes the tension, and promotes a slow, full beat, with a normal tension of pulse.

The skin which previously was hot and dry becomes moist and comfortably warm under the gentle diaphoretic action of aconitine in proper dosage. Other body-secretions are restored to normal, while the general as well as local effects are such as to promote a speedy termination of the inflammatory process.

The "Small Dose Frequently Repeated"

The keynote of success with aconitine, in the management of acute febrile conditions, is, proper administration and intelligent combination with other remedies when indications for the use of adjuvants are present.

Aconitine is a remedy the action of which is very ephemeral. Given by mouth, aconitine is absorbed from the gastrointestinal tract in a few minutes and passes through the body, and is quickly eliminated by the skin and kidneys, with stimulation of the function of these organs. Aconitine is absorbed in as short a space of time as fifteen minutes, while its elimination from the body does not re-

quire more than thirty minutes, as a rule. From this, it can be seen how unscientific it is to administer doses of aconite at three- or four-hour intervals. To get any sort of dependable results from this drug, the dose must be small and repeated at short intervals.

Small doses often repeated is the important point to remember in the administration of aconitine and of aconite in any form. Where tincture of aconite (U. S. P.) is made use of, the dose should not exceed 1-2 minim for a child of one year. This dose should be repeated at intervals of about fifteen to thirty minutes. In my private practice, I make use of the tincture to some extent, but have in the last year become very partial to the specific medicine aconite and the alkaloidal salt aconitine, giving the latter, as a rule, in 1-800-grain doses, at short intervals, the dosage for young children being established according to Shaller's rule.

Under this method of exhibiting the drug, the temperature soon begins to drop, the patient begins to perspire, restlessness is quieted, and the backbone of the inflammation usually is broken within a few hours.

Aconitine Synergisms

In acute inflammations of the digestive tract in children, there generally are found high fever and extreme restlessness. In the presence of these symptoms, the aconite action

is materially enhanced by the addition of gelsemium, or gelseminine. This remedy exerts a powerful sedative effect upon the nervous system, especially in the child, and the effect is, materially to increase the power of aconite.

For the purpose of enhancing the antiphlogistic action of aconite, the combination with small doses of belladonna or atropine is very effective. The latter agent also counteracts the effects of acute inflammatory conditions of the same type as those in which aconite is applicable.

Especially for use in the gastrointestinal inflammations, ipecac or emetoid is a valuable agent, given in connection with aconitine and gelseminine or aconitine and atropine. Ipecac (or emetoid) in good-sized doses acts as a gastrointestinal irritant, but in minute dosage it tones up the mucous membrane of the bowel and has a most beneficial effect in restoring normal function to the glandular structures of the inflamed mucous membrane.

Another valuable aid in the management of these cases is, the combined sulphocarbolates—the intestinal-antiseptic combination. The use of these intestinal purifiers and protectors may be begun immediately after the calomel purge, and they materially assist in shutting off the absorption of toxic material from the bowel, thereby making more easy the work to be accomplished by aconite and its adjuvants.

The Physicians' Microscope

Its Construction, Preservation, Use and Application

By A. H. UHLER, M. D., Rochester, New York.

THE microscope may be defined as an optical instrument which magnifies and resolves minute objects that are invisible to the naked eye. By this process of magnification and resolution, we are able to see minutia

clearly defined and separate from surrounding objects.

Upon looking into the microscope, a large disk of light is seen, in which the object may be freely moved about. This is known as the

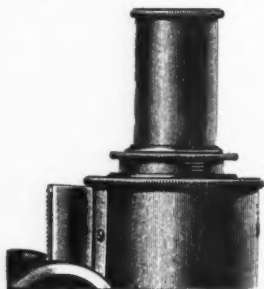


Fig. 1. Showing how the draw tube should be made.

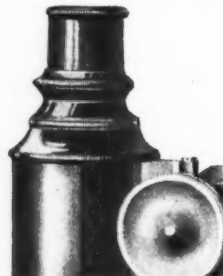


Fig. 2. The draw tube as it should not be made.



Fig. 3. The body tube.

field of the microscope, and its outer edge is formed by the magnified image of the eyepiece diaphragm. Its size depends upon two factors, namely: the actual diameter of the eyepiece diaphragm and the magnification of the upper lens of the eyepiece known as the eye-lens.

For convenience of description, the microscope may be divided into two parts—the

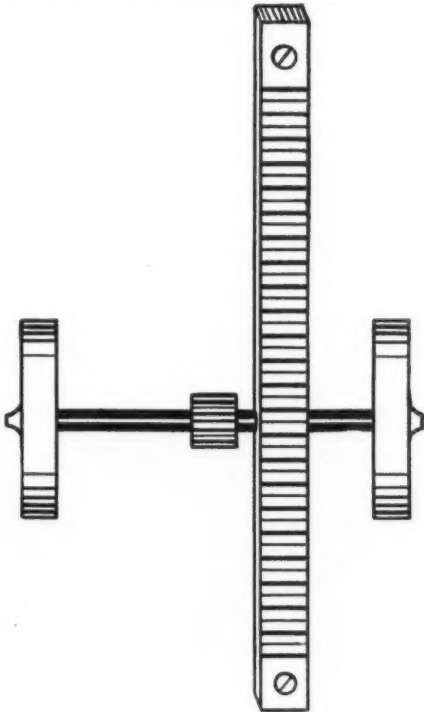
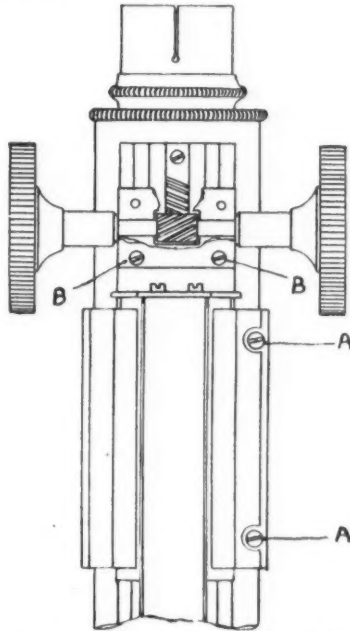


Fig. 4. The old style, antiquated rack and pinion movement.

optical and the mechanical—both of which are equally important for a good objective. Ocular, substage condenser, and mirror are of very little use when thrown into a heap on the table; they must be properly placed in relation to each other and so mounted as to yield their maximum effect. This is accomplished by means of what is known as the stand or mechanical portion of the instrument. I shall describe the stand or mechanical portion first.

Details of the Mechanical Portion

The stand consists of the following parts:
The draw-tube.



Figs. 5 and 6. Diagonal rack and twisted pinion.

The body-tube, also known as the body, barrel or main tube.

The nosepiece, with its society-screw at the lower end of the body.

The rack and pinion coarse adjustment.

The arm.

The fine adjustment.

The stage.

The spring clips.

The mechanical stage.

The tail-piece.

The substage.

The mirror.

The foot.

The joint for inclination.

The clamp to the inclination.

Details concerning these parts follow.

The draw-tube slides into the upper end of the body, and it is finished black or nickel-plated. It should be graduated in millimeters or inches. It should slide smoothly in a cloth-lined tube; some prefer a metal fitting, but the trouble is that this arrangement rubs

should be combed a little to make them a trifle smaller. The body-tube should be large in diameter, say, 50 mm., so that short-focus anastigmatic photographic objectives can be used without restricting their angle of view. Also, a large body permits of the use of a larger diameter of eyepiece and, hence, a larger field—which is a great comfort in low-power dissections or in examining large cultures, bank notes, and so on.

The nosepiece at the lower end of the body is screwed into its lower end, and is for the reception of the male thread of the objective.

The Adjustments

I shall now consider the construction of various means for the coarse adjustment. The common method of effecting this coarse adjustment is either by means of the sliding tube or by rack and pinion.

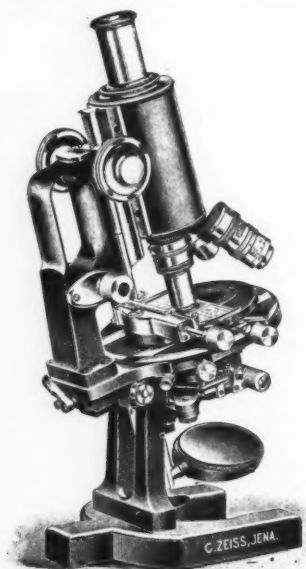


Fig. 7. The Zeiss stand.

the graduations from the draw-tube and causes it to become very unsightly. It occurs to the writer that a ball-bearing contrivance for this would be ideal. The milled surface by which the draw-tube is grasped should have a large surface, and when pressed home should be easy to take hold of, as shown in Figure 1. Figure 2 shows it as it should *not* be made, but still as it often is found at the present day.

The body-tube is that part which receives the draw-tube at its upper end and the nose-piece with society-screw at its lower part. The screw at the lower end is termed the society-screw (or the universal thread) because it was first recommended and adopted by the Royal Microscopical Society of London. It is 0.7969 inches in diameter and has 36 threads to the inch. The nosepiece, or objective, is screwed into this thread on the lower end of the body. Although all objectives are supposed to fit this thread, we find the German objectives sometimes are a little large. I trust the manufacturers will endeavor to remedy this. The threads

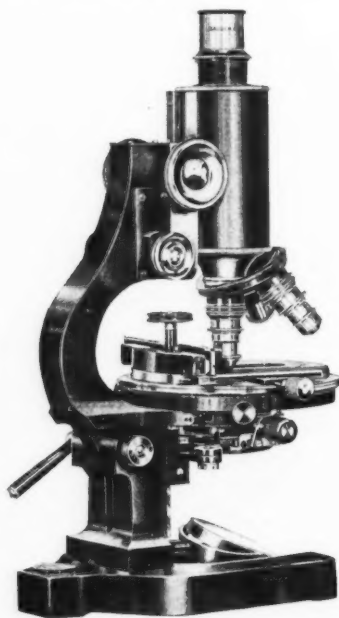


Fig. 8. Bausch and Lomb stand.

The sliding-tube adjustment is antiquated and should never be employed; for, it has two great defects. The first is that it cannot well be used with a nosepiece. The second objection is that the tube becomes loose from constant wear and thus endangers the object and objectives, as it is liable at any moment to let them drop on the object, with disastrous results. The only way I see that it could be perfected in the latter respect is, by giving it

a ball bearing, which bearing could be tightened up from time to time as any wear took place.

The old-style perpendicular or cross rack and pinion (Fig. 4) is antiquated and gives a jerky movement. It should never be selected—in fact, it is hard to find at present, having been superseded by the diagonal rack and twisted pinion, which has now been so amply tested as to show that it is all that is required for the purpose in question. When made properly (as, for instance, in the Grand Model Van Henrick microscope by Watson, and in stands by other eminent makers), it leaves absolutely nothing to be desired. It consists of a rack as clearly shown in Figure 5, and a pinion as seen in Figure 6. Its precise action is due to the fact that the leaves of the pinion enter corresponding teeth in the rack, not all at once as in the old form, but gradually, thus reducing friction to a minimum.

But, why in this modern age and generation the coarse adjustment cannot be driven by power—say, electricity, for example—I never could understand. I think the old method of

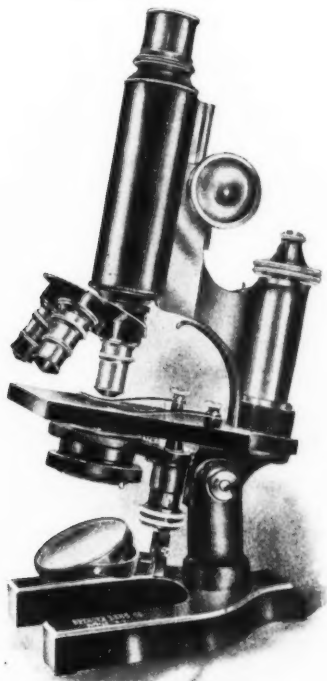


Fig. 9. Spencer stand.

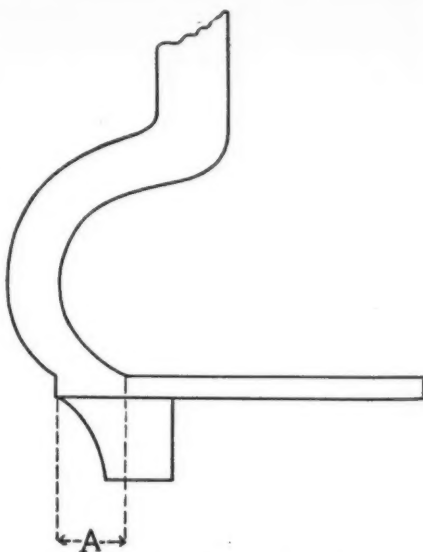


Fig. 10. Plane of stage as usually made.

turning milled heads to make the adjustments of a microscope are relics of bygone days and I call the manufacturers' attention to this suggestion for their careful consideration.

The Supporting "Arm"

The arm of the microscope is of importance because it supports the body-tube of the coarse and fine adjustments, while often it is so shaped as to serve as a handle for carrying the instrument from place to place. Three different styles of arm are in vogue, namely: the shape represented in the stand made by Zeiss (Figure 7), the one adopted by Bausch & Lomb (Figure 8), and that represented by the Spencer Lens Company's improved Continental Model No. 40 (Figure 9).

The arm of the (old) Continental model, is not to be recommended, because, when made with sufficient overhang to make an arm-axis distance of, say, 80 mm., there is too much strain upon it, with a consequent unequal wear of the triangular bearing of the fine adjustment, which sooner or later will show play that cannot be taken up even if a compensation mechanism be provided. Also, it does not form a suitable handle by which to carry the instrument, as the fine adjustment is liable to be damaged. In the improved Spencer No. 40 all of these defects have been carefully obviated by a proper handle placed beneath and parallel to the inner curvature of the arm. But the point is, if this stand is

grasped by the pillar when used by the uninitiated, it very likely will suffer.

The Bausch & Lomb stand (Figure 8), on the other hand, is about as perfect, so far as the arm is concerned, as can well be imagined; but even this instrument's arm could be

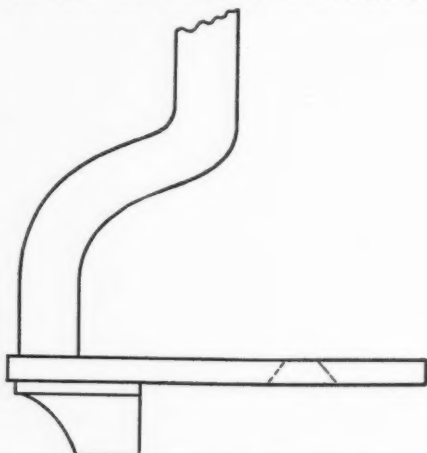


Fig. 11. A better-planned microscope stage.

slightly improved if the center of the curvative of the arm were in the plane of the stage. Figure 10 shows it as usually made; Figure 11, as it should be. In Figure 10, the distance from the center of the stage to the front of the arm is cut down to the extent of A, whereas in Figure 11 this does not occur. In Figure 12,

we have an arm of very good shape, but it is rather unsightly and would hardly be employed for this reason. In the Zeiss instrument (Figure 7), we would suggest that the aperture in the handle be made large enough for the entire hand, or, about 90 mm. long by about 40 mm. wide, so that a moderate-

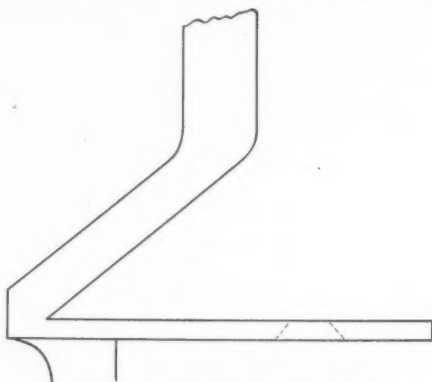


Fig. 12. Arm of good shape, but rather unsightly.

sized hand could grasp it with ease and comfort, instead of admitting only one or two fingers. To sum up then: if the arm does not have sufficient room for all four fingers of the hand and give at least a distance of 80 mm. from the center of the stage to the front of the arm, it is in miniature only and not suitable for serious work.

(To be continued)

Nocturnal Enuresis

From a Series of Seventy-five Cases

By HARRIS DANA NEWKIRK, M. D., Minneapolis, Minnesota

Director, Research Department, Hennepin County Juvenile Court

I OFFER no apology for bringing this old, and usually considered simple, subject to your attention. From a considerable experience, I have learned that, even following to the minutest detail all the directions given in all the textbooks, so far as I have seen, we still shall have a goodly percentage of bed-wetters uncured; much to the chagrin of the physicians and the disgust of the family. So far as I have observed, the texts follow the usual plan of copying each other blindly, and then consider the matter thoroughly handled. True it is that many children who have been sufferers for years—and many of them really show mental anguish—have been

cured by the old-time methods, but, to reach the inveterate, obstinate cases that do not respond to ordinary treatment, is the true test and really is the keynote of the handling of all cases; for, the simple ones can be handled much more easily and quickly if the right procedure is followed.

Determining the Cause

Enuresis, or bedwetting (nocturnal), is caused by a partial or complete relaxation of the sphincter of the bladder during sleep, and this, in turn, has various causes. Holt, Chapin, Pisek, in fact, all the writers, lay great stress upon sources of physical irritation

as primary causes. Mention is made of phimosis, worms, acidity of urine, stone in the bladder, reflexes in the anal region (fissures, polypi), reflexes in other parts of the body (adenoids, thyroid insufficiency), and constitutional conditions (rickets); in fact, any irritation any where in the body has been mentioned as a possible cause. The physician is urged to make a thorough general examination and to advise the removal of every such source of irritation, in the hope that somewhere before he gets through he will hit upon the cause and, thus, perform a cure.

I have no fault to find with this procedure, for, if real sources of irritation are present, they should be removed; anyway, in order thereby to improve the general health of the child; but still, it would seem as though there should be some way to evaluate more accurately the different findings of a physical examination, so that a more definite predictability could be made concerning any particular irritation as a given cause of enuresis.

Certain it is that many children have phimosis, acid urine, worms, adenoids, or other mentioned abnormality given as a cause, but yet never show any disposition to wet the bed, while often certain patients, even after submission to all this corrective work and in addition having received the usual remedy—belladonna—do not get well. And then we are accustomed to say that there must be some physical source which we have not been able to discover.

Feeble Mentality as an Important Factor

For several years past, I have had considerable experience with children who are more or less mentally deficient, children not merely retarded from physical causes, but actually lacking in brain capacity. These children originally are not in any sense considered as insane or definitely feeble-minded, yet, even the ordinary observer who has had ample opportunity to note their manner and mode of living will conclude that there is something different, that the child assuredly is queer or that it seems to be a sort of general misfit and not adaptable to ordinary methods of education or social life.

It is a fact, well known to those experienced in this line of work, that bedwetting is exceedingly common among these subnormal types, some even having relaxed anal sphincters. It is not overstating the facts to say that fully ten percent of these children are bedwetters.

A prolonged observation of these children and their habits led me to make some observations with regard to the relationship subsisting between mental deficiency and enuresis. As a result, I concluded that the lack of self-control, owing to lack of general brain-force, so common in this class, is a factor of prime importance and must be considered in their treatment.

I do not wish to be understood as making the statement that all bedwetting is a consequence of mental deficiency; I must insist, though, that in a careful consideration of any given case this most important point be kept well in mind by the examiner. He very frequently will find this the key to the problem. Of course, the cure can be greatly aided and quickened by combining with it any or all of the treatments heretofore mentioned.

My records show a series of 75 subjects, ranging from six years to eighteen years (all boys), who have been bedwetters all their lives, many of whom have undergone strenuous treatment by all the usual routine methods. It is but fair to state that only such cases have been included in this series as I have been able to give full examination and treatment. Some have been from the wards of the Juvenile Court and some from private practice, but the same methods were used in all alike.

The Diagnostic Procedure

First and most essential to a diagnosis of causative factors, we must place a careful psychological examination, to determine the degree of mental control we are dealing with. This necessarily involves technical detail, but it needs no further mention here; suffice it to say, however, that this element in the diagnosis, with a view to prognosis, is all-important, while also it is the factor that I have nowhere seen mentioned in textbooks.

Following this, I give the usual thorough physical examination. To one who is experienced in psychological work, the findings of the physical examination are much more easily evaluated than if merely taken by themselves. If masturbation and sex-delinquencies in a subnormal mentality are predominant, one can look more certainly to the genital tract for direct sources of irritation. If such delinquencies are not observed, but general sluggishness, with lack of mental development, one can feel that he must give some close observation to the thyroid and other ductless glands. In certain cases, the general treatment of the mentality alone,

with thyroid, pituitary or mixed extracts, has produced marked results in enuresis, as also general mental improvement.

The Therapy Suggested

After the thorough mental and physical examination and removal of sources of irritation, the child is placed on a 0.1-percent atropine solution, 5 to 10 drops at 4 and 8 o'clock p. m.; while, if he is very nervous, he is given, in addition, at bedtime, 10 grains of sodium bromide in elixir of lactopeptine. Depending on his mentality, he also is given some of the ductless-gland extracts. The treatment is continued for not less than thirty days after the patient apparently is well.

In addition, if he is a mouth-breather and accustomed to sleeping on his back, I fasten a large spool in the center of his back, by means of adhesive strips, in order to remind him gently that he should sleep on his side; for, usually it is when lying on the back that the bedwetting takes place.

This treatment will cure most victims. However, in those stubborn ones who evidently do not try to help, I have forced them to wrap the wet sheet about their neck and to stand at the head of the stairs till all the household have come down to breakfast.

This, of course, is very humiliating, but it has a most certain and positive effect upon the subconscious mind, and often acts as a specific. A few days of this will so impress the subconscious mind that even in sound sleep the child will be able to retain a grip on its sphincters, which otherwise he would not have. This may seem like a queer and almost cruel procedure, but, I can assure you, it is very effective, especially in subnormal children. It merely is making use of suggestion in a pronounced form, the discipline that has made so many converts to our Christian Scientist friends and for the lack of which the medical profession has suffered so sadly. This line of treatment, so neglected by most of us, should be as much a part of our armamentarium as are the drugs and the knife.

In closing, I will merely state that I have yet to see the case that could not be cured when given full opportunity, and the longest time taken has been less than three months, mostly much less. I believe most strongly in removal of all physical defects first, and I recognize the value of proper therapy; but, in addition, I insist that intelligent treatment along developmental and suggestive lines is of the utmost importance in the treatment of enuresis.

The Keystone of Success—Collections

By A. D. BRUSH, Chicago, Illinois

EDITORIAL NOTE.—This is a topic in which every good doctor who also wishes to be a good business man should be greatly interested—interested to the extent of taking an active part in the business symposium which we propose to conduct following the publication of Mr. Brush's fine series of papers. Do not wait for further invitation—write us now! Tell us your troubles. Give us your advice. Help us—all of us—as much as you can.

[Continued from page 434, May issue.]

IN CONSIDERING the following forms and collection schemes, it must be remembered that form letters and other examples can only be suggestive. No hard and fast rule will obtain. Conditions vary in different localities, and for different men in the same locality. As a general rule, unless you know otherwise, you should hold that a man is good pay until it becomes plain that he is not. Consequently, your first appeals should be based upon good-will, friendship, reciprocity, and may be accompanied by some sort of constant reminder. One business man sends with his second statement a card copied after the familiar "I O U," in this way:

U OWE ME
\$10.00
DR. SMITH

Another merchant has a somewhat similar device, made into the form of a pocket-piece about the size of a silver quarter.

You might try pasting the upper edge of your statement to a blotter, cut to the size of the statement, with a notation printed on the lower margin of the bill, reading: "To be torn off when paid." The blotter will be preserved in practically every instance, so that the statement with it serves as a constant reminder until the bill is paid.

Your first letters should hint at oversight as a cause for delay and suggest good-will or reciprocity as a reason for payment. The following forms work out this idea in various ways:

Possibly my previous statement was not received by you or has been forgotten in the rush of other matters.

I rely upon the good will of my clients to make the necessity for these reminders as few as possible, and shall greatly appreciate it if you will make further notices unnecessary by remitting promptly.

In writing to a business man, you might vary it thus:

You undoubtedly have my last statement somewhere on your desk, expecting to send me a check at the first opportunity, but each day the matter has slipped your mind.

Why not avoid another reminder by sending that check today?

Thank you!

Here is one of the "different" type, which always proves productive of results:

"Tempus fugit"

It seems only yesterday that I sent you my bill for services rendered—but the calendar says it was a month ago. This probably will surprise you as much as it did me.

I am counting upon your check in the handling of my expense accounts this month.

For small accounts, use something like the following:

Just out of curiosity, last evening, I figured up my collection expenses and found the cost in your case to be as follows:

Three statements.....	6 cents
Two letters.....	4 cents
Stationery.....	5 cents

Counting nothing for my time, it has cost me so far just fifteen cents to remind you of this little bill of \$1.50—just 10 per cent of the amount due.

Of course, the delay has been unintentional and I am sure that you will now stop further expense to me by promptly remitting. Thank you, in advance.

Here is a letter which presents your side of the case to the neglectful client:

It was David Harum, I believe, who remarked that "a certain number of fleas is good for a dog, because it keeps him from worrying over being a dog."

We all have our worries, imaginary and real. If you could just take a look at the past-due accounts in my books and another at my expense record for drugs, and so on, you'd realize that serving the sick is not all an unbroken romance.

May I look to you for a check by return mail?

How to Handle the Personal Equation

Letters containing appeals directed toward any personal characteristic must be handled delicately. Never tell a man that he is acting at variance with his convictions. Suggest, instead, that, by paying you, *he is living up to them*. This makes it the line of least resistance for him to do so.

Just what to say depends entirely upon the sort of man you are and the sort of man your debtor is. Write him as you would talk to him. Imagine him reading over your shoulder as you write. Then your

letter will be more human, have more of the "you and I" element, which gets results.

Be moderate in your statements and reasonable in your requests. Never, never "bawl out" anybody. The man who is down and out today may be at the top of the heap tomorrow. "I consider your neglect as anything but honorable" and "Your reputation for honor demands that you give this attention without further delay" both touch upon the same human trait, but the first provokes anger while the second produces cash.

To the *conscientious* man, suggest that he has his reputation for honor to maintain.

To the *benevolent* man, suggest that charity begins at home.

To the *proud* man, suggest that he will enhance his standing in the community by maintaining his reputation for prompt pay.

To the *friendly* man, suggest the advantages of retaining your friendship.

To the *economical* man, suggest the addition of interest to the account and his better chance of getting ahead with old debts out of the way.

To the *cautious* man, suggest the advisability of getting out of debt.

To the *ambitious* man, suggest the benefits of a clean credit record.

To the man who always is *hard up* suggest small weekly payments.

To the *deadbeat*, threaten loss of all credit by reporting his name to local merchants' associations or advertising the account for sale in local papers.

Hints About Envelopes

Practically everybody values public opinion, and dislikes to have even the postman know that he is being dunned. An Illinois physician takes advantage of this fact and uses a different-colored envelope for each consecutive notice. His first statements are in white envelopes; the second ones, in buff; third, in pink; and so on. The results secured are gratifying.

A Chicago business man uses the same idea in a different way, by using increasingly larger-sized envelopes, until the final notice is delivered in a large envelope of red color, with the word FINAL printed upon it in heavy black type.

A stamped, self-addressed envelope, accompanied by the suggestion that no letter is necessary—"Simply enclose your check and mail it to me; no letter is needed; I shall understand perfectly"—usually will get prompt action from the man who likes to save.

Persistent, systematic work with the telephone always is effective, especially so in the case of salaried men or those doing business. Try calling up the man at a certain hour every day. His associates soon "get wise," and he will pay up to escape their gibes. Even if he slams down the receiver as soon as he finds out who it is at the other end, you have started a train of thought for the day that ultimately will lead to his paying.

It is not hard to find out when a wage-earner receives his salary, if you know where he works or know his friends. A guarded question, mentioning no names, will get the information. You can then arrange to meet him outside his place of business or at his home as he comes from work. He *can't* put you off, with the money in his pocket.

Are such procedures beneath the dignity of the physician? Why should they be? Some people simply won't pay until they are shown what an *intensely personal* matter their debt is. What is more personal than you, yourself? You visualize the debt—permit of no opportunity to dodge. The fact that right and honor is on your side makes your position all the more impregnable; *lends dignity*, rather than detracts. Use your spare time for a few weeks in seeing your debtors personally. It pays big dividends.

Something You Should Not Do

There is a difference between the merely novel or unusual and the bizarre. Each must decide for himself just how far off the beaten paths he may stray. Here again your intimate knowledge of your client is of value. You probably would hesitate a long time before sending any man a card on which was printed:

MAN IS MADE OF DUST

DUST SETTLES

????

It *has* been used, however, and with good results.

However, it is best always to avoid harsh or unkind procedures. Patient, ever-courteous, ever-continuous dunning wins in the end, and leaves no regrets.

When a certain eastern doctor receives a promise from a debtor to pay on a certain date, he mails him, on the day before the promised payment, a leaf from his daily memorandum calendar, dated for the day on which payment is to be made, which reads somewhat as follows:

FRIDAY

May 7th

Pay

Dr. Jones

\$5.00

today

"Making Hay While the Sun Shines"

In a community that had been hard hit, through the temporary closing of the workshops upon which the majority of its members depended for a livelihood, the doctor sent the following letter to his debtors:

Undoubtedly our locality has received a severe financial setback through the closing of the ——— plant.

If this has affected you in any way, please tell me, so that I may know how to handle your account.

If you can arrange to pay me five dollars on account now, I will accept your note for sixty or ninety days (when the shops surely will be reopened) for the rest, so that you will not need to worry about this in the meantime.

The following letter, which appeared in a past issue of *The Medical World*, is a good one, and may, in season, be sent to every debtor on your books, without fear of giving offense:

I have been busy all winter serving the sick. I have neglected my family and my own health in this sacred cause. Now spring is opening up and the pressure upon me is getting less. I have pulled through in pretty good shape, except that my accounts have been sadly neglected. I must now give them immediate attention, and, if my patrons will respond as faithfully as I always have responded to their call, all will be well.

I enclose your statement. Kindly give it attention this week, as I must meet some demands that were neglected while my entire attention was given to the sick. If you can not pay all at present, please pay as much as you can, and also fill out the enclosed note-blank for the remainder due, the note to be payable either in thirty or sixty days, as may best suit your convenience.

I am always glad to see you, Mr. ———, but, since, of course, I cannot always be in my office, it may not be convenient for you to call in person. So, if check or check and note are sent by mail, all purposes will be served promptly.

With all good wishes and always at your service, I am yours,

Very sincerely,

Holidays, changes of season, local events, and so on, can all be made use of as a basis around which to frame letters, appropriate to send to the slowest of the slow as well as to the more recent delinquents. The continued good-will manifested in every letter ultimately shames even the would-be dead-beat into paying.

Bank Drafts

A draft, drawn through the local bank, nearly always is very effective. Its appeal

lies in the fact that every man, whether a depositor or not, likes to feel that he is in good standing with the bank and, consequently, will pay a draft, in order to maintain this standing. Never, however, draw upon a man without first giving him ample advance notice, thereby affording him an opportunity to pay you direct, if he does not want to be drawn upon. In business procedure, we find that the advance notices bring payment from approximately 33 percent, while the drafts themselves bring pay from about 50 percent of the number drawn upon.

Make of your advance notice a customary procedure, not something directed against the debtor personally. The best method is, to place on the statement a rubber-stamp or printed notice reading somewhat as follows:

Your account is past due. If I do not hear from you by ———, I shall assume it your pleasure that

draft be made for the amount, which will be through the ——— Bank.

When you draw, send the debtor a brief notice of the fact. A copy of the draft itself is sufficient; or, you may write like this:

In accordance with my recent notice, I have today drawn upon you, through the ——— Bank, for \$———. Please protect draft on presentation, and oblige.

Draft forms may be procured at almost any stationery store or the bank will supply them. The small item of exchange (10 or 15 cents) which the banks charge really is worth the results secured. In general, I believe that physicians and dentists should make more use of the draft-system. Business firms print on their statements: "All past-due invoices are subject to draft after previous notice." Certainly, there is every justification for the professional man to follow suit.

Evidences of Senile Mental Impairment

By I. L. NASCHER, M. D., New York City

THE cases to be considered in this paper present various phases of senile mental impairment, the subjects of which are octogenarians, their ages ranging from 82 to 88 years. The oldest in this series of eight is a retired minister; of the others, one is a retired merchant, one is a manufacturer still in active business, one is a physician, one is a lawyer, and one is an humble shopworker. There are two women (widows), one living alone, the other living with her daughter. The merchant is married, his wife being over 70 years old; the manufacturer has his second wife, thirty years younger than himself; the other men are widowers. The retired men are decrepit invalids, the others are all active. The shopworker still goes to his shop, walks about two miles every day, and also attends his lodge meetings, in which he holds official positions, several evenings a week. The physician still is in active practice and attends to medical meetings. The lawyer is at his desk daily, unless it is stormy. The old manufacturer potters about in his factory, occasionally taking up a pair of heavy shears and cutting through several thicknesses of cloth, just to show visitors that he still is expert at his old trade, at the same time blaming the dull shears if he fails. One of the women does her own housework, the other spends much of her time at visiting.

More interesting than the physical condition of these eight cases is their mental state. One can form no estimate of anyone's mental deterioration unless the present condition can be compared with his mental condition when at its best; nevertheless, there will be indications of even slight mental deterioration obvious to the stranger, besides many others capable of being recognized by a close observer, although he may know nothing of the former, normal, state.

An Aged Minister

I had not seen the minister before, but had been told that he was remarkably bright and well informed and that he was frequently consulted on matters relating to church history and church polity. In the course of a few minutes' conversation, I discovered that all his mental efforts were concentrated upon the one subject, of his life's work, theology, while in other directions his mind plainly was decidedly weak.

I endeavored to avoid the topic, not knowing enough about it to discuss it intelligently; however, he persisted in talking about church matters. If I asked a question relating to something else, he would either quote scripture applicable to my question, or he would deliberate a few moments, then say, "I don't know," or "I am not certain," or, apparently

forgetting my question, would return to his favorite topic.

Several times during our twenty minutes' chat he asked what my name was, and once, when I interrupted him with a simple remark, he forgot where he left off in his conversation. He took little interest in the affairs of the day, the great European war being passed off with some remark about the power of prayer, while its causes were laid to man's wickedness. It was impossible to keep his attention riveted upon anything except theological matters, and toward the close of our conversation he showed signs of brain-fag, mental confusion, and drowsiness. He was able to recall early events, but not recent ones. He never was strong-willed, but has become a slave to routine, and a slight interruption in his accustomed mode of life causes him to brood for days, even after the cause is forgotten.

Mental Symptoms of an Old Merchant

The old merchant I have known for over twenty years. He retired from his business about fifteen years ago, although he kept up interest in its affairs and visited the place occasionally, until five years ago, when his physical debilities and infirmities became pronounced. His physical condition and his complete retirement from business caused mental depression; he became a hypochondriac, melancholia developed, and he now is in the closing stage of senile dementia.

For hours this old gentleman will sit looking aimlessly at the walls, oblivious to his surroundings and the demands of nature. Occasionally something which affects his senses powerfully (such as the slamming of the door, turning on the light, a blow, the smell of ammonia or the taste of cayenne pepper) will momentarily attract his attention and he will appear to be startled or turn his head in the direction of the source of disturbance, but he exhibits no other evidence of intelligence. Up to a few months ago a certain old favorite air would cause him to wrinkle his forehead as if making an effort to recall something; but this no longer happens. He will sit around, and he can be led, but to all appearance he is unconscious of his existence. His mental condition, of course, is obvious to any stranger.

The old manufacturer I saw for the first time in his place of business, of which nominally he is in charge, although actually it is conducted by his son and a partner. This man is intelligent, takes part in serious discussions, and, whether it be about war,

politics, religion or business, he evidences good reasoning-power.

A Case of Senile Egotism

A prominent characteristic shown is, that he uses superlatives excessively, exaggerates the importance of trivial matters, while his son tells me that he has become exceedingly cautious and suspicious in business matters, which frequently makes it necessary to deceive him—a thing readily done owing to his forgetfulness. He will, for example, repeatedly look up the rating of some old, reliable customers, demand security for goods to be shipped, insist upon security from shippers, from employees, even from the bonding company.

His conversation begins with "I" and ends with "me." There are no delusions of grandeur, wealth or position, yet, there is intense egotism, as made apparent in constant boasting of his shrewdness, skill, strength, powers of fascination, and in other directions. He makes many mistakes in calculations, and he becomes irritable and abusive when his attention is called to these mistakes, but will forget about this display of temper a few minutes later. His son says that he occasionally laughs and cries without apparent cause or else for the most trivial reason.

Formerly a strong personality, he has become submissive, is easily led from his purpose, and spends much time in trivial tasks, such as picking up remnants of threads, straightening out boxes, dusting off his desk, and such like; or else he will look up accounts, reports, ratings, and papers, dozing off after a few minutes of such work. His mental impairment is recognized by those who know him; it would not be recognized, however, by a stranger, unless when the man began to speak in exaggerated terms of his strength and other qualities, or unless purposely close observation were made.

Mental Failure of a Lawyer

I have known the lawyer for a number of years and have been able to observe the progressive impairment of his mental faculties. This can clearly be demonstrated by a comparison of letters written five years ago and recently. The former are coherent throughout, and the last line is written as carefully as the first. A recent letter on a similar subject begins rationally and for a few lines it is coherent. After that the letter becomes rambling, introducing matters of fifty years ago that have no bearing upon the subject, while toward the end it becomes an

uncipherable scribble. The same now occurs in conversation. Speaking rationally at first, he soon becomes confused or rambles, or else he grows reminiscent, while relating the same episode over and over again until his audience leaves him or he himself becomes exhausted.

Formerly this lawyer was reticent about himself; now he has become extremely egotistical. Thus, recently, when celebrating some anniversary event, he wrote to his friends requesting them to send him congratulatory letters which he could read at a meeting and then publish. He believes that he still is as competent as ever in his profession, that he will live to be 100 or 120 years, and that he is in perfect health.

During the past few years, he has become associated with various cults, such as the Spiritualists, Theosophists, and others of that kind. His office is in fearful disorder and his desk is littered with new and old books, journals, papers, clippings, and photographs, which his clerk says have been lying there for months, he having been forbidden to touch them; yet, the old lawyer makes no attempt to restore order. A stranger speaking to him for a few minutes on law matters or one of his hobbies will find him exceptionally intelligent; if, however, the conversation becomes prolonged, his mind begins to wander, so that his mental impairment becomes obvious.

The physician, whom I have known for many years, is one of the remarkable old men of the day. In practice, in discussions upon the affairs of the day or upon medical subjects, his mind is extremely clear and alert and works as rapidly as it did years ago. He is quick at repartee, instantly grasps the import of a scientific statement, and has kept abreast of the times, and the only evidence of mental deterioration he has evinced is a more rapid brain-fag. He has a very retentive memory, not alone for early events, but for recent happenings, and recent books and periodicals, recalling names and dates, which are usually first forgotten in senile mental impairment.

In late years, he has become more serious, less aggressive, less energetic, his contributions to literature are not as elaborate nor as frequent as formerly, but his interest in life, in the affairs of the day and in medicine is as keen as ever.

The Last of the Sextette

The last one of this male sextette has been my patient for nearly thirty years. A few years ago he was pensioned and for two weeks he enjoyed a vacation. He then tried to get other work, but when he found that nobody

wanted to employ a man nearly 80 years old he became depressed and said he thought he was fit only to die. His firm reinstated him and he became again cheery and happy. Soon afterward, the senile climacteric occurred; he became moody or elated without cause, at one moment complaining of his family's neglect, the next moment praising their solicitous care and attention. During this period, which lasted several months, he had occasional delusions of persecution; he also frequently was absent-minded.

Since then there has been a slow progressive mental deterioration which the close observer would recognize. It takes a few moments before he grasps the import of a question and before he can frame a reply. There are moments when the mind seems to be a mental blank, this state lasting perhaps two or three seconds. During this short period his facial expression is that of the idiot, the corners of the mouth droop, the eyes have a dull stare, the cheeks puff out. He never has been a deep thinker or a close observer, while, aside from a superficial interest in the affairs of the day, his interests were centered in his family, his simple work, and lodge matters.

Now interest in his work has diminished and he goes to the shop through mere habit; his family affairs give him little concern, and the only interest he still has is in his lodge work. This and his petty ailments occupy his entire thoughts. He can discuss, so far as his limited education goes, the events of the day, but he soon tires of such discussion and I have known him to fall asleep while he was talking. He has a fairly good memory for recent events in which he participated or was otherwise interested; other events, such as he reads of, are immediately forgotten. This case illustrates the typical mental and physical deterioration that involves all the organs and tissues and their functions after the senile climacteric.

Mental Symptoms of Two Old Women

The older of the two women has been living alone since the death of her husband nearly twenty years ago. Before his death, she was hospitable, sociable and charitable, but soon after his demise she became irritable and suspicious, quarreling with one friend after the other, until they quit her, and even her children could not bear her peculiarities. For the past ten years there has been coming on a slow mental impairment. Her interests in life have become restricted, until today she cares about nothing except her life and her little home, including a cat—her sole com-

panion. She goes out every morning for a few minutes to buy food. Aside from this, she does not leave her house, admits no one to her rooms, and in fact leads a hermit life.

I saw this woman recently, when she was ill, and observed marked mental impairment. She had a simple intestinal colic, but she was convinced that she would die and gave me some extraordinary directions about her funeral. It was impossible to divert her thoughts from this notion, and she repeatedly made me promise that I should not inform her children (whose names she could not recall) of her death.

I saw her again on the following day and found that she had but a dim recollection of my call the day before, had entirely forgotten our conversation, knew nothing of the affairs of the day and did not care to hear any news, her health and the health of her cat being the only things she wanted to talk about. A neighbor informed me that she sometimes walked out absentmindedly, and on several occasions neighboring shopkeepers were obliged to show her the way home. Her children are now trying to induce her to enter a home for the aged.

The other woman is the antithesis to this one. She is 82 years of age, is fond of society, especially of the young, and tries to appear young by resorting to facial artists, hair-dressers, beautifiers, and dressing in youthful garments and conducting herself like a young woman. She takes seriously the joking propositions of marriage made by young men who know her weakness and even discusses the eligibility of her proposers—ignoring the ridicule by others, which she ascribes to envy.

This old lady's interests are those of the younger generation, including woman suffrage, riding astride, mother teachers, female invasion of masculine occupations, and all that. Her conversation consists of gossip and chats about fashions, young men, and her health. Her memory is weak, she loses her way, frequently forgets where she is going, oblivious of the fact that she carries a memorandum-book in which she notes methodically all her appointments. When discussing woman suffrage and similar serious subjects, she soon becomes confused and either turns the subject or refuses to continue. On the whole, her conversation is rational and coherent, although inappropriate for a woman of her age; and to the casual observer she appears giddy and silly. She was always fond of society; until two or three years ago, however, her associations were with

persons near her own age and station, and she dressed and acted accordingly.

Those who come in daily contact with an aged person do not notice the gradual mental impairment; still, in time they will realize that such a one is growing peculiar and cranky, forgetful, careless, and inattentive, developing sudden whims and odd hobbies and often causeless fears and worries. They find that the aging person cannot accommodate himself to modern ideas and methods and holds on to lifelong habits; and then they say he is old-fashioned. If they find fault with him, he complains of ill treatment and neglect, becomes despondent, and thus the foundation of oikomania—which is so prevalent among the aged—is laid. Moreover, there generally is mental depression, owing to the petty discomforts, the realization of diminished economic value, and the knowledge of the rapidly shortening span of life.

Early Senility, in a man of Sixty

I will add one more instance, a case which I have been able to follow day by day for many years and in which I made notes of the mental changes as they became pronounced.

This man at the age of 50 was prominent in fraternal organizations, a forceful speaker, a systematic reader, genial and popular. He made an excellent appearance and was vain of a fine head of hair and long well-kept whiskers. About five years later, a few gray hairs appeared and he began to use hair-dyes; also, at about the same time he began to use aphrodisiacs. It was then noticed that occasionally he was morose, and his employees complained that he was becoming more exacting. In lodge meetings he frequently discouraged frivolity and levity, although formerly he had indulged in them himself.

This man was about 60 when I first began to make note of his mental condition and observed the little peculiarities that pointed to mental impairment. He still used hair-dyes and aphrodisiacs and tried to get rid of wrinkles, but he was noticeably careless in dress. He was serious, exacting, precise in speech.

His interest in the affairs of the day began to wane, although he still displayed great interest in lodge matters, where his strict rulings in cases where common sense and sentiment justified a deviation from parliamentary practice made him unpopular. He did not take part in discussions as often as formerly, but when aroused or challenged he exhibited his oldtime vehemence and logical reasoning, albeit without those bon-mots and

witty remarks that marked his speeches in former times. He also began to give evidence of weakened memory and was frequently obliged to look up authorities and decisions which he formerly could quote offhand.

Five years later, the mental impairment was visible to the close observer. He still used hair-dyes, but his hair and whiskers were getting thin and he frequently ran his fingers through the hair, pleased when no hairs came out and dejected when he found a hair or two adhering to them. He now was frequently depressed, took little interest in the affairs of the day or even in lodge matters, which formerly had engrossed his thoughts; only something of great importance and affecting him personally could arouse him. His mind was now absorbed in his shop. He grew indifferent to his family, had little to say at home, became a slave to a routine mode of life, which only personal discomfort could induce him to break. His business methods and machinery were antiquated, but he would make no change, although his business was thereby being conducted at a loss, while he could well afford to modernize his plant.

At this point his memory had become perceptibly weak and he could not reason clearly; however, he recognized some of these changes in himself and endeavored to hide the defect by avoiding conversation. He exhibited an unreasoning obstinacy in the conduct of his business and in his routine habits; yet, in other respects a child could lead him from his purpose. This mental impairment proceeded, and by the time he was 70 it was plain even to the stranger.

Shortly before his 70th birthday, physical debility and the burning of the building in which his shop was located forced him to retire from business. Before this happened, he went from his home to his shop and back to his home, like an automaton, and on several occasions when I met him on the short walk he passed by staring ahead or, if I stood in his way, he passed around, seemingly unconscious that there was an animate obstruction in his path. When I spoke to him on these occasions he appeared startled, as if awakened from a reverie.

His business now decreased and he spent much time over his books, filled sheets of paper with figures which seemed to have no relation to his business or to anything else; nor would he explain what they referred to.

He went to three banks in which he had accounts, shifting his accounts in such a way that it was not clear how much he had, and after the fire, in which his books were destroyed, it was impossible to get any idea of the state of his business affairs. After the fire, he was apathetic, took no interest in anything, walked, absentminded, to the burnt building and with his keys attempted to open the doors, and it would be necessary to show him the burnt interior, before he could realize that he could not enter. At home he spent hours jotting figures in a notebook, which he hid about his person.

By speaking to him continually about the coming celebration of his 70th birthday, it was possible to arouse in him a continued interest in the affair, and he even prepared a speech, the manuscript of which showed errors in spelling, omission of words, introduction of foreign matter, numbers, and scrawls. He tried to memorize the speech while walking absentmindedly through the streets and in his rooms, but evidently he did not get beyond the first two or three lines. When the celebration was on and congratulatory speeches were being made, he kept mumbling to himself, rehearsing his speech, utterly oblivious to his surroundings. When he was prompted to arise he repeated a few of his lines, then dimly realizing that he could not do what was expected of him he broke down and wept, only to be fast asleep a few minutes later. The mental decay now proceeded rapidly. Although I had been with him daily for years, he forgot my name, and later he forgot the names of his wife and children. Eventually it required prolonged effort and prompting before he could remember who I was, and still later his mind became an absolute blank.

Memory, reason, will, emotions, all had vanished, and he became an absolute dement, lacking even the fundamental instinct of self-preservation. For several months before he died he kept up an unintelligible jabber, did not recognize anyone, powerful sensory impressions failed to produce a response, and toward the end his existence was purely vegetative.

In this case, the excitement connected with the burning of his place of business, as also the birthday celebration, probably hastened the final breakdown; still, in its entirety, this is a perfect case of progressive senile mental degeneration, from strong mentality to complete decay.



Out California Way

The Story of a Doctor's "Wander Year"

By HENRY B. HOLLEN, M. D., Venice, California

EDITORIAL NOTE.—There is absolutely nothing "medical" in this fascinating article, but there is much in it that will appeal to every doctor who may long for a delightful vacation in our "American Riviera," such as Doctor Hollen is experiencing. Even if you are not planning to go to California this year, you should read this "story."

WHEN the administration stopped issuing passports to European countries, thus putting another damper on transatlantic travel, the newspapers of the West Coast crowded loudly. For, it meant the turning back of the golden stream that, up to the present, has flowed copiously into foreign coffers—a part of it at least. It meant that the daring ones who would go to Europe anyway, war or no war, were actually to be prevented from crossing the gangway, unless they could prove they had business on the other side. This year, seekers after pleasure and new sights must seek them in America, to stay at home, under the circumstances, or go south. But a great many, habituated as they are, in common with the birds, to light out somewhere in the springtime or early summer, will betake themselves to the West—and to the expositions.

And they are needed to make up the crowd which the West has been awaiting. So far, the two expositions have not been any too well attended. The looked-for crowds have not arrived yet. The opening days were good, both at San Francisco and at San Diego, and so were one or two of the special days. But, on the whole, the promoters are far from feeling satisfied. Of course, it would be very poor business policy to express any dissatisfaction publicly; so, they are keeping upper lips stiff and uncommunicative, hoping for a good, big crop of summer tourists. The truth, nevertheless, is that the attendance, since the opening dates, at both places has only been about half of what it should have been, and probably would have been in any normal year.

It Is an Off Year

But, then, this is decidedly an off year. People are not traveling as much as in previous years. And those who are traveling are not spending as freely as formerly. So it seems. They take cheaper rooms at the hotels. They patronize cafeterias. They are chary with tips. They are buying few souvenirs. They haggle over the price of things. On all sides

you can see small merchants to the trade and caterers to tourists looking very peeved.

The foxy Armenian rug-seller can get no one to buy his stuff or even to look at it. He is perplexed at this unwillingness on the part of the public, which, in more prosperous years, came readily to him with its money. Now he must post an impassionate appeal on his window for customers; in bold letters, he cries out that he needs cash badly and, to get it, is willing to sacrifice his stock. The enterprising Japanese finds it extremely difficult to awaken interest in his showy oriental merchandise. Those who condescend to look refuse to purchase. It is terrible! And the rent goes on just the same. In desperation, he will hire an auctioneer next week, to try his persuasive mouthings on the passing populace. Then there is the real-estate man. He certainly is having a good rest. He is lucky if he can make one turnover a week. They come not to his office. Those whom he succeeds in interesting he must go out into the streets to find; it has actually come to that pass, when he is obliged to bait customers with promises of a free ride and a picnic-lunch. He has properties to sell; he must, somehow, get people out to see them, depending upon his salesmanship to close a deal.

The other day I came across a restauranteur whom the dulness had driven frantic. He had put out, in front of his place, a large sign with this query on it:

"For God's sake, don't you ever get hungry?"

The situation here is about as depicted in the foregoing. There are signs of commercial depression everywhere. In Los Angeles, one can count hundreds of vacant stores. Lapses into bankruptcy are frequent. But, I am wandering. Let me get back to the expositions.

This condition of depression, which is general, goes a long way to account for the light attendance. And also the war, which prevented some of the intending exhibitors from filling contracts and greatly delayed

others. No doubt many people who could afford to travel this year, and fully intended to come, changed their minds at the last minute, fearing too much in the way of exhibits would be missing. But nobody should allow himself to be so influenced to stay away. There is aplenty at both expositions. They are wonderful shows, worth girdling the earth to see.

The exposition grounds at San Diego were anything but congested in April. Said a resident to me soon after my arrival, when I expressed the hope that the crowd would not be too large for comfortable sightseeing:

"A crowd, did you say? Not a bit of it! That is just where you want to go to avoid a crowd."

And so it proved to be. No need was there to step on other people's heels; no need for jostling. On the contrary, I found it an ideal place for aimless rambling. I could go as slowly as I liked, as leisurely as I chose. There was always a clear path to walk in and always a seat vacant in which to rest when wearied from too much walking. No crowds—no disturbing noises—no unwelcome bickerings.

You Must See San Diego

Here, at San Diego's exposition, on its ample mesa, you may be far from the maddening bustle of the city and its irritating obstructions; in ten minutes you may leave all that behind you and, once inside the gates, enjoy a most reposeful day. You may commune with nature, alone, on many a pleasant walk. You may listen to the inspiring strains of the huge organ, resting under the blue sky, in the warmth of the glorious sun. You may watch the parade of the mariners, preceded by their spirited band, on the Plaza de Panama. Whatever you choose to do you may do unhurried and undisturbed.

Here is one continuous feast for the eyes. For beauty of surroundings, for natural attractiveness pure and simple, nothing I have seen in this country or in Europe surpasses it. Do not look here for a gigantic affair. You can walk over the whole of it in a day. There is no immense display of exhibits to be seen here. The only foreign exhibitor is Japan. It is the out-of-doors you will enjoy at San Diego. You will bask in the matchless sun. You will breathe the invigorating sea-blown air. You will see such a profusion of flowers—of palms—of peppers—of lemon-laden trees—as will startle you. You will find interesting walks to take; charming nooks to linger in. The quaintness of the buildings, one after the other, will

please you. All is artistic and harmonious exteriorly. The old Spanish mission style of architecture prevails. And all around you is sun-drenched. Verily, here is a scene you will not soon forget, a bit of earth re-made on an Arcadian pattern.

My best advice to those who intend coming west this year is, not to skip San Diego, just because it happens to be the lesser attraction. By lesser, I mean in point of size. To do so, would be a grievous mistake, especially for those approaching the coast at Los Angeles, which is only a hundred and twenty miles north. For, San Diego has what San Francisco has not: the natural tropic beauty that the latter cannot duplicate except under glass, and a climate that it cannot duplicate at all. You will do well to prolong your stay at San Diego, instead of allowing yourself to be hurried northward by promises of a bigger show.

San Diego a City Beautiful

Apart from the Exposition, San Diego is the beginning of a city beautiful. To my mind, it is far ahead of Los Angeles in everything except size. You will see streets that are wide and well kept; blocks, substantial and pleasing to look upon; and parks that are wondrously pretty. Here is truly a city—begun! What a splendid location it has on that grand land-locked bay, promising one of the best harbors in the world. Across, within plain sight, looms up Coronado Beach, and behind are the mountains. The Mexican border is seventeen miles to the south. As far to the north lies that pretty seaside place called by the pretty name of La Jolla, where stretches of sand alternate with rugged rocky cliffs.

It is seldom that warships are absent from San Diego harbor, and the middies are usually found upon its broad streets enjoying shore-leave. And frequenters of the waterfront see, many a time, birdmen ascending from the aviator's field across the bay; the food-hunting seagulls circling low and lazily; porpoises emerging from the shimmering blue waters.

San Diego even now has the best of everything—nearly. She boasts the finest theater west of Chicago. Not a park that I have seen in this country rivals Balboa Park. Here are the largest and most pretentious cafeterias extant. Here is a hotel better than any in Los Angeles, built by the son of General Grant and bearing his name. Also they have in San Diego a railway station, of the Santa Fe line, which puts to shame the terminals of the boastful metropolises.

Visitors from the East and Middle West will find some of California's claims substantiated, and some not. So far as climate goes, question not that the very best all-year-round climate is here, particularly in the vicinity of San Diego. The officially compiled temperature-record for a dozen years back reveals the fact that this section has a climate virtually identical with that of the most favored spot in Europe, that is, the Riviera, at Nice and Mentone. Only, there is a little bit more wind here.

The City of the Angels—and of Churches

Opinions differ; mine is, that Los Angeles is mostly to be commended as the point of departure for the several beauty-spots adjacent to it. A score are within easy reach—by means of an excellent electric trolley system. In half an hour you can slip away to the beach cities—for surf bathing, for fishing, for boating, or simply to get the bracing seabreezes. Or, you can descend into the valleys, where golden oranges bend the trees and roses bloom in profusion. Or, you can run up to snow-capped mountain-peaks. Or, visit the tidy communities on the desert's edge; the millionaire colony at Pasadena, which will be found just as advertised.

Although Los Angeles boasts half a million people, it is not a city—yet. As anyone can see who has been about much, it lacks metropolitanism. Which goes to show that it takes more than mere population to make a city. No—Los Angeles is as yet nothing but a town. It is a large town, to be sure; it is a church town; and it is a good, healthy place to live in.

Those who feel at home in a pew will feel at home in Los Angeles. Here are tabernacles galore—the million-dollar skyscraping kind. Here are churches looking extremely prosperous. Here are evangelists drawn from remote parts, regardless of expense. Here are ministers of the gospel advertising in the newspapers for hearers as merchants advertise for customers. There are so many churches that competition is keen.

A few years ago, Los Angeles "threatened" to become a city. It took on metropolitan airs. It began to be very, very wicked. But all these tendencies were quickly suppressed. A police chief was installed, who proceeded to make the town as good as its name. He fumigated it—scrubbed it—polished it—made it look very clean. When he got through, it was declared to be chemically pure. But, today, this same guardian of morals is in public difficulty; he is being tried

before the grand jury for moral turpitude, involving the delinquency of one young girl and the dependency of another. The newspapers are full of it. A lot of dirty linen is being hung out. And the good citizens view it with surprise.

Attractions Along the Beach

The traveler can well afford to wait till he gets to San Francisco, to enjoy the café life and other diversions of this kind. Here, around Los Angeles, is the country to enjoy. And the beach—it is beautiful between Venice and Santa Monica. These two places are connected by a broad cement promenade and a clean sandy stretch that is a continuous delight to surf bathers. The promenade is four miles long. The Venice end is by far the liveliest, with all sorts of attractions, among them an Italian band of twenty-four pieces, under the directorship of Signor Cesare de Monaca. This band plays every day, afternoons and evenings. This lively suburb was planned and developed by one Abbott Kinney, who made his money selling Sweet Caporal cigarettes, the popular brand of our boyhood days. He patterned it after the famous European prototype. Here are canals and gondolas, squares and colonnades, all looking quite foreign. An immense amusement-pier runs far out into the ocean—an avenue of fun and frolic of every description. Further on, in the Santa Monica direction, is a second one, fully as large, with the municipal dancing-pavillon at its seaward extremity. And still on, beyond, is the Nat Goodwin Café, which at night is a blaze of white light and the destination of many joy-riders.

Some of the Beaches

Santa Monica proper is a fine residential spot, with the ocean in front and the Sierra Madre range of mountains on the north of it. No finer townsites have I seen anywhere. Along the shore is a park in process of development, which will be two miles long when completed—a crescentic band of grass set with handsome palms and peppers and geraneums. This coast has a future. With age and finish, it should rival the celebrated Mediterranean Coast. Nature has done its part; it only remains for man to do the rest.

Many people have heard only of Long Beach, perhaps because it is the largest seaside suburb of Los Angeles and the most widely advertised. It claims forty thousand permanent residents. But the visitor will be disappointed in Long Beach, if at all discriminating. On the way, he will see many

ugly spots and, having arrived at his destination, he will find a water-front that is exceedingly untidy and cheap in character.

Hotel Accommodations and Railroads

In California, hotels, as a general thing, are good, with rates more reasonable than elsewhere in this country. This I found especially so in San Diego, where they have provided hotels aplenty. And no just complaint can be made as regards the run of accommodations in San Francisco. The exposition authorities of both cities exacted from hotel-keepers agreements not to raise rates this year, and for the most part these agreements are being lived up to. But some who are more greedy than honorable are asking an advance. Besides, in general, apartments rent for ten per cent more than usual.

At the principal Los Angeles hostleries, rates have been raised quite materially. The crowd is here, going north and south, and while passing through is being made to disgorge. But, there are places in Los Angeles where one can stop at small expense. For instance, the two tabernacles—the Bible Institute and the Trinity—both new, are taking guests, at rates of seven dollars a week (room only), single or double, and a nominal advance by the day. Both are centrally located. Smoking is proscribed here; also cardplaying. And the sexes are isolated. You get a good bed, a clean bath, and plenty of light.

From Chicago, as also from St. Louis, several routes westward are available, at the same cost. For comfort, the Santa Fé is my choice. For scenery, take the Denver and Rio Grande from Denver or Pueblo to Salt Lake. From there, the Salt Lake route to Los Angeles, or the Western Pacific to San Francisco. Either is scenically rich. A longer trip is that by way of New Orleans on the Southern Pacific and connections. This affords an opportunity to see both New Orleans and San Antonio, although the second has little to tempt a stopover. But further on is El Paso, which is well worth seeing; from that point, one can have a look into Mexico.

Many come here with a misconception of weather conditions and suffer discomforts as a consequence. Bring warm clothes with you, including an overcoat. Evenings, as a rule, are cool on this western coast, and wraps are in constant demand. Even in midsummer they will be needed in San Francisco, not only at night, but in the daytime when the blustery tradewinds spring up. The balmy nights of Florida and Cuba, familiar to win-

ter visitors to those parts, are not here. Just as soon as the sun goes down, it turns cold. And when the sun is blanketed by clouds it usually is cold; even when the sky scarcely is flecked, chill winds may more than neutralize the sun's rays.

San Francisco Beats All

The visitor will find the exposition at San Francisco fully up to expectations. For large proportions, for shimmering electrical effects, for absorbing cosmopolitanism, this show is the best of them all. Joe Cannon was there last month with a congressional party. These were his words after spending a day on the grounds:

"Three times beautiful! I shall be eighty-one next April. Thank God I have lived to see this wonderful exposition! No adjectives can describe its immensity and grandeur. It is a sight worth coming the ends of the earth to see."

The Side Shows

Those who are fond of music will find treats at both expositions. At San Diego is that huge organ donated by Spreckles and played by Stewart. There is a daily concert by the band of the Third Artillery Corps, U. S. A., which is encamped on the grounds. And, right now, Creatore's band is playing an engagement. At San Francisco music may be heard from morn till night. At noon there is an organ recital. Max Bendix is there with his splendid orchestra. A French band, under the baton of Gabriel Parés, plays every day; also the U. S. Marine Band; also the Philippine Constabulary Band. Everything else at San Francisco is on the same generous scale.

Both expositions have their pleasure streets, as all similar shows have had before. But at San Diego this feature is not a great success. The spirit of revelry by night—the abandon—the hilarity—which we expect in such quarters is not on the Isthmus. You must go to the Joy Zone of San Francisco for that. There you will find the bally-ho and such other naughtiness as has got by the police censors of that metropolitan community. To be sure, we have at San Diego the Hula-Hula dancers, but they will be found to conduct themselves as perfect ladies. And there is Underground Chinatown: this is a show which little boys and girls may witness with impunity. It is funny and instructive, with hardly a suggestion of any of the deviltries that slant-eyed celestials are supposed to be up to at times.

To me, it seems especially regrettable that the San Diego exposition is not better attended. It certainly deserves twice the number of people it is getting. The promoters have lots of credit coming to them for attempting such a stupendous show and succeeding in the attempt, without any federal aids whatsoever. As I have already said, there are almost no foreign exhibits, but the exhibits of the southern California counties, in their several buildings, will delight the visitor. It is a *mélange* of fruits and fruit-products wondrous to behold. And there is a citrus-grove in full bearing, the trees of which were planted only two years ago.

The rapidity with which Los Angeles sprang up caused the whole world to marvel. It seemed magical. Yet, we can account for it easily enough. It was the favoring climate. It was the alluring landscape. It was the man of capital, coming from the East to spend here his remaining days and incidentally investing his money here. It was the oil that gushed from the earth. It was the semitropic sun. It was the fertile soil, needing only water to produce. It was all of these things together that made this coast, and will continue to make it.

The Golden State

Few realize the vast area of this state—the Golden State. You can put the states of

New York, New Jersey, Massachusetts, Maine, Vermont, New Hampshire, Connecticut, and Ohio in it and yet have considerable acreage left. Those who visit it at this season of the year (spring) cannot fail to return well impressed, especially by the southern half. Most people go away feeling they would like to come again some day. The fruits of Florida may be sweeter, but, for flowers and diversity of scenery, for comfort and wellbeing, California comes first. This is the land of flowers; they have in this section a wealth of color and scent not attained elsewhere within our national confines.

A state so benignly favored by nature cannot fail to recover from periodical depressions, such as the present one. What California needs is, more actual tillers of the soil and people of the constructive type having money to work with. Of tradesmen, clerks, carpenters, doctors, lawyers, she already has superfluity.

A fact not generally known, a quite interesting one, is that eighty or ninety percent of the world's moving-picture films are produced here in California. This is because the sunlight is exceptionally good, winter and all the year; and because the natural scenery is so diversified. A setting for almost any picturization can be found in an hour's time—only a few miles away from the studio.

THE TEETH

By James A. DeMoss, M. D.

What gems, what glittering gems,
The parting lip reveals,
Within the facial cavern set,
Guarded by crimson shields!

They are enameled jewels rare!
More precious, where they stand,
Than whitest pearls or costliest stones
On breast or jeweled hand.

These ornaments aglow with light,
Which charm and beautify,
Unconsciously we constant wear—
False charms they well defy.

Oh, guard them well and keep them clean,
Nor tarnished words befall;
Nor unclean thoughts in speech concealed
Pollute and stain and soil!

Oh, never let defiling weed
Enter, to mar and dim
Their glittering, splendid whiteness rare,
Gem beauties, bright and trim!

They minister to health and life,
They watch the open door,
They speed our garnered nutrient wealth
To waiting bins in store.

Teeth beautify the facial form;
They set with character;
They feed us with the living bread,
They form our words of cheer.

They are our strength, these picket-walls,
Which guard life's entrance well;
Secure they make the inner halls
Where life's great functions dwell.

What Others are Doing

ANOTHER INSTANCE WHERE PSORIASIS WAS CURED BY EMETINE

In the March number of CLINICAL MEDICINE, we printed an abstract of an article contributed by Dr. W. R. Chaplin to *The Dental Cosmos*, in which he reported the prompt disappearance of psoriasis following the treatment of pyorrhea with emetine. Now Dr. C. T. Pearce, through *The Lancet-Clinic* for April 24 (p. 474), reports another case of psoriasis successfully treated with this remedy.

The patient was a woman who had been a victim of psoriasis since early childhood, and, when seen, had a coexistent pyorrhea. Doctor Pearce gave this woman eight hypodermic injections of emetine, each containing 1-2 grain of emetine hydrochloride in 1 Cc. of distilled water. The injections were given semiweekly, without producing nausea. "The influence of this treatment upon the skin eruption," Doctor Pearce writes, "was marked after the third injection, and the body now is entirely clear. I have a second case under treatment, and improvement already has begun, following four injections of the same amount of emetine."

This report is so interesting that we hope other physicians will be impelled to give this method of treatment a trial.

IS MIGRAINE LIKE EPILEPSY?

Is there an analogy between epilepsy and what we call sick-headache? W. K. M'Coy, writing in *The Lancet-Clinic* for April 24 (p. 474), expresses the opinion that these recurrent headaches are the expression of a true intoxication that in several respects show a similarity to epilepsy.

Thus, for instance, there usually appears, in sick-headache, a distinct prodromal stage, and the victim of these recurring headaches learns to regard this symptom with suspicion. Then, when the headache is fully developed, there is a stage of lethargy—of mental torpor—similar to the stupor following grand-mal. Vomiting is a frequent concomitant of sick-headache, as it likewise is in the postconvulsive

stage in many cases of epilepsy. Sick-headaches are best relieved, and frequently may be aborted, by prompt purgation; and the same seems to be true of epilepsy. Furthermore, some of the victims of recurrent headache have proved to be subject to intestinal stasis. In fact, these patients are constipated all the time. In this respect, again, they exhibit a resemblance to epilepsy.

In view of these facts, and in the light of the experience of Dr. C. A. L. Reed, Doctor M'Coy suggests the desirability of looking to surgery for the relief of the underlying cause of these cases of migraine—a cause which is to be found in the intestinal canal. The oil treatment of the constipation also deserves trial.

BACTERIN TREATMENT OF PNEUMONIA

The principal reason why bacterin treatment has not proven more successful in pneumonia, according to W. H. Wynn (*Brit. Med. Jour.*, Mar. 13, p. 458), is, because it has been resorted to mainly as a last resort, in cases which are not doing well under other treatment. Wynn declares that, if a vaccine is of any service at all in this disease, it should be employed as soon as possible, in order to limit the intensity of the infection and prevent the occurrence of grave symptoms. His own practice is, to administer the bacterin as soon as possible after the onset of symptoms, so as to insure an accumulation of antibodies in the blood, and, consequently, to have them present at the time when they can do the most good.

Wynn's opinion is, that during the stage of firm consolidation little can be expected from vaccine-treatment, so far as the affected parts of the lung are concerned, since the emigration of leukocytes and the clotting of fibrinous exudate in the alveoli impede the access of antibodies from the blood.

Doctor Wynn recommends the use of a stock vaccine made from highly virulent strains of pneumococci; with such a vaccine he has obtained some really remarkable results, the most striking being in patients who

were injected on the first and the second day. In these, there was no doubt about the course of the disease having been greatly modified. In no instance, even when the first injection was given as early as ten hours after the initial rigor, was consolidation prevented. Nevertheless, the unusual spectacle was seen, of a patient having a large portion of his lung solidified, but presenting normal pulse, respiration, and temperature, and absence of any characteristic symptoms.

In other words, bacterin-treatment prevents the toxemia characteristic of the disease, providing it is given sufficiently early; but, it does not prevent pulmonic consolidation.

IMPROVED SPLINT, ESPECIALLY FOR FIELD-HOSPITALS

Naturally, European medical journals are filled these days with discussions relative to military-hospital work, and, so, Doctor V. Bayer, of Munich, describes (*Muench. Med. Woch.*, 1914, p. 1986) what he considers an improvement in the splinting of limbs that have to be firmly fixated—one of the important field activities of the field-surgeon. Plaster-paris bandages are best for this purpose; however, strong objections obtain against the spiral winding bandage, inasmuch as, under the circumstances, the attending surgeons change frequently, and, consequently, the supporting bandage needs must be as frequently removed. The disadvantages are plain. But the need of easy removal not infrequently confronts the surgeon in civil life; hence, his interest.

Doctor V. Bayer's method of constructing a cheap and durable accurately fitting, stout, removable hollow splint, which has served him to good purpose, is as follows:

The material employed is wool felt. Cut a strip from 4 to 7 inches (according to size of limb) longer and wider than the splint is to be. Then cut a second strip somewhat shorter and narrower than the first one, yet larger than the finished splint will measure. Thoroughly soak the two pieces in water. Lay the larger strip of felt upon the place to be supported—say, the leg—then rub into it plenty of gypsum magma. Now superpose the smaller felt strip in such a manner as to leave even borders of the lower protruding all around. This in turn is rubbed in with the plaster-paris paste. Of course, this covering is molded against the body. Now fold backward upon itself the four sides of this double felt layer so that the contrivance is of the di-

mensions in length and breadth as intended, first, however, smearing an extra liberal amount of the gypsum along the line forming the edges of the splint.

These borders of four-fold thickness of felt, after hardening of the plaster-paris, yield a stout support, that can be removed at will, while the edges cannot laminate; however, for special reasons, the lateral edges can be still further strengthened by inserting, before folding back, narrow soft-iron bands. Of course, windows can be cut into the material at any desirable point before applying the plaster-paris paste.

To fit the popliteal space, the patient is turned over. For constructing an arm-sling support, the felt strips are impregnated all over with gypsum paste, applied to the arm, the borders folded upon themselves, then the whole is wound with a mull bandage against the arm and supported from the shoulder. Such a contrivance, firm, nonelastic, accurately conforming, may be finished in the brief space of four or five minutes.

ANTITHYROIDIN IN EXOPHTHALMIC GOITER

In opposition to those who deny remedial value to Moebius' antithyroidin in cases of exophthalmic goiter, Doctor Schmalz, of Dresden, told the Society of Therapeutics and Physiology, of that city, that he himself has witnessed excellent results from the use of the milk of thyroidectomized goats, originally, and afterward from the antithyroidin. He added, though, that, when the disease is found not to yield after, say, the employment for five or six weeks of approved medication, operation should not longer be delayed.

PUERPERAL ECLAMPSIA AND GLYCEMIA

Starting from the theory that functional disturbance of the liver lies at the bottom of puerperal eclampsia, Dr. Bentlin (*Proc. Med. Soc. of Koenigsberg*, reported in *Muench. Med. Woch.*, 1913, No. 15) concluded that particular attention should be directed to the presence of sugar in eclamptic persons, since the metabolism of the carbohydrates here is prominently concerned.

Investigations conducted by him have shown that the normal percentage (average of about 0.82 p. c.) of sugar in the circulation remains undisturbed in menstruating as well as in gravid women. However, when labor has

set in, a hyperglycemia occurs, which the author attributes to the intense muscular exertion, whereby seemingly more sugar is consumed, with resulting increased production in the liver. One proof of this he finds in the fact that the glycemic condition is greater when parturition has been prolonged or very painful. During the puerperium the normal balance of the sugar is soon restored.

The percentage of sugar in the blood is greatly increased (on an average to 0.113 %) when the parturient is attacked by eclampsia; but the sugar is found only when the blood is drawn during a seizure or between attacks; a further fact considered to connect the phenomena with the muscular work. If the hyperglycemia resulted from disturbed hepatic functioning, then, obviously, it should continue after cessation of the attack.

Increase of sugar in the blood was not observed after abortion, except when the hemorrhage set in suddenly; during prolonged bleeding the amount was seen to diminish even. The author feels justified in excluding any connection of the suprarenal and hypophyseal glands here, because augmentation of hemic sugar generation has not been recorded for hypertrophic states of those organs.

SOME VIRTUES OF PILOCARPINE

We find an interesting study of pilocarpine, by R. J. Smith, in *Northwest Medicine* for April, page 126. In the course of his remarks, the author states that pilocarpine has a double action, through the modification of the dosage. Thus, given in small doses, this alkaloid cures ptialism; in larger doses, it has the opposite effect—produces ptialism. In small dose, it is an arterial sedative, lessening the rapidity of heart-action and reducing temperature, so that, for instance, in some cases of erysipelas, it often is to be preferred to aconitine; while, on the other hand, in large doses, it is antispasmodic, as, notably, in rigid os uteri.

Pilocarpine is useful for relieving the itching of jaundice. In this condition, the dose should be small and be given at short intervals to effect. As it increases the flow of all the secretions, it is unequaled as a diaphoretic, and, given in full doses, often will break up a cold. Also, a full hypodermic dose of 1-6 to 1-2 grain not infrequently jugulates an attack of acute rheumatism, relieving the acute pain and swelling promptly. It is a remedy of positive value in the treatment of all muscular pains, including lumbago, pleurodynia and torticollis.

Smith also has found pilocarpine valuable in eclampsia and uremia, probably because it produces free elimination. In eclampsia, he uses it in association with veratrine.

Given early, pilocarpine will cut short an attack of mumps. It also is found useful in treating the eruptive fevers, especially when the eruption is delayed. It is almost a specific in erysipelas of the sthenic type. Also, it is one of the best remedies for breaking up the chill of malaria. Asthma, pertussis, edema of the glottis, mania, and dryness of the mouth from any cause, are all successfully treated with this remedy.

The drug is also recommended in a variety of other conditions too numerous to mention in this short abstract. For one thing, the statement is repeated that it stimulates the growth of the hair when applied locally and taken internally; it also is said to darken its color. We should like to get some plausible evidence that it has this effect on hair growth. Who can supply it?

THE INJECTION-TREATMENT OF HEMORRHOIDS

In the February number of *CLINICAL MEDICINE*, we printed an abstract of an article by Sir James F. Goodhart, who, through the London *Practitioner*, had given his endorsement of the injection-method of treating hemorrhoids. In the March number of the same journal (p. 343), we find a symposium upon this subject, participated in by F. Swinford Edwards, P. Lockhart-Mummery, James Eadie, Rollin H. Barnes, Ivor Back, and Sir James F. Goodhart. All these contributors are Englishmen, with the exception of Dr. Rollin H. Barnes, who is an American, and edits *The Proctologist*, of St. Louis. Strangely enough, all the Englishmen are favorable to the injection-treatment, but the one American in this group opposes it. However, there are degrees of approval expressed by the Englishmen, some being very enthusiastically in favor of this method, others much less so.

It seems that F. Swinford Edwards, author of the first paper in the series, was the first to introduce the injection-method into Great Britain, he having contributed a paper upon the subject to *The British Medical Journal* as long ago as in the year 1888. Doctor Edwards has had an experience with some 6000 operations for piles. It appears that, under most circumstances, he favors Salmon's operation; nevertheless, he fully agrees with

Sir James Goodhart, that the eradication of hemorrhoids by means of injections might be undertaken much more frequently than it is. The only reason why he does not resort to this method more frequently is, that these patients who come to St. Mark's Hospital as a rule have been suffering for a considerable time and now desire a radical cure. It is asserted by Doctor Edwards that the cases suitable for the injection-treatment are those of reducible internal hemorrhoids, uncomplicated by external tags or piles, fissure or fistula; and more especially those in which the patient cannot afford to give up work. He also has recourse to it when general anesthesia is objected to by the patient, or contraindicated by reason of heart or lung trouble.

Edwards' procedure is as follows: After a warm boric-acid enema, the piles are extruded, the patient is placed upon a couch, in the knee-elbow position; then the piles are mopped over with a little warm lysol or other antiseptic solution. Now from 3 to 6 drops (according to the size of the tumor) of the following solution is injected into the center of each prolapsed hemorrhoid:

Carbolic acid, pure.....	grs. 24
Glycerin.....	dr. 1
Water, enough to make.....	drs. 2

Formerly, Doctor Edwards employed a 10-percent solution; that is to say, one of only half the strength of the foregoing. However, he finds the stronger solution more efficacious.

After this solution has been injected, swelling occurs at once; hence, the piles must be returned immediately. This is all, and the patient is allowed to go home, after being cautioned to return the piles, should they prolapse.

P. Lockhart-Mummery, in his article, declares that during the whole time in which he has been practicing at St. Mark's Hospital, he never saw or heard of a single instance of embolism occurring after these injections, although something like 300 operations for hemorrhoids are being performed at that institution in the course of a year. The only accident which he ever has met with in the injection-treatment occurred in the case of a patient who was the subject of hemophilia; and this man nearly died of hemorrhage from the needle puncture.

In summing up, Lockhart-Mummery says that he agrees with Sir James Goodhart, in considering the injection-treatment harmless, and he further asserts that in selected cases it gives very good results. Still, he is in agreement with Dr. Ivor Back, in considering

it inferior to operation when this can be carried out by a skilled surgeon, under suitable conditions.

James Eadie reports that during the last ten years he has made, in hospital and in private practice, about 2000 injections for hemorrhoids, and he considers it the treatment of choice for primary hemorrhoids, and the procedure to which he would prefer to submit himself should he require treatment of this nature; for, he believes that it conforms to the rule of curing *cito, tuto et jucunde*. He always advocates injection in preference to operation, except in cases where for some other purpose the patient has to be subjected to general anesthesia. In that case, Eadie contends, it is well to take advantage of the opportunity presented and surgically remove the piles at the same time.

Furthermore, Eadie believes that the percentage of cures following the injection-treatment is as high as that from any other kind of operation. Recurrences, in his experience, are the exception, while he never has witnessed any dangerous complications in connection with this treatment, and never an instance of embolism. The only mishaps observed by him are: (1) Pain, which follows if the injection is made too near the mucocutaneous junction or if the pile is allowed to remain prolapsed after injecting it. (2) Sloughing of the mucous membrane over a small area, eventuating in an ulcer or fissure. This also results, Eadie believes, from injecting too close under the surface of the mucous membrane; and for this reason he tries to introduce the fluid at least one-fourth of an inch deep, also, as near as possible to the point where the veins leave the pile.

Doctor Barnes (our countryman, as said) declares himself an uncompromising opponent of the injection-method of treatment. He does not believe it good surgery, and says that proctologists should keep up with the pace of advanced surgery. "Why not," he asks, "in this hemorrhoidal region treat a tumor as we should do in any other part of the body? Excise it, so that the skin or mucous edges come together smoothly." In concluding his paper, he says, "Do not let our experience lead us backward, rather than forward, with the trend of surgical improvement."

The papers of Back and Goodhart are, in the main, a reiteration of previous papers published in *The Practitioner*. Doctor Back presents, very succinctly, arguments for and against this method of treatment. The "pros" for the injection-treatment named are

as follows: (1) Time is saved; (2) no anesthetic is needed; (3) the treatment is painless; (4) immediate relief is given; (5) the risk of complications, in skilled hands, is nil.

The "cons" are as follows: (1) Injection is contraindicated in strangulated, sloughing or irreducible piles; (2) it is a waste of time when the piles are complicated by fistula or ulcer, since these can be cured only by operation; (3) a permanent cure will not be obtained by injection in about 15 percent of cases; or, to be correct, 40 percent of curable cases are absolutely cured by the first injection, and the remaining 60 percent have a return of symptoms within four years, three-fourths of these being permanently cured by a second injection or series of injections.

MIKULICZ'S DISEASE CURED WITH RADIOGRAPHY

It is reported by Chinton and Aubineau (*Strahlentherapie*, IV, 2; cf. *Ther. d. Gegenw.*, 1914, No. 7) that they have had good results in one case of Mikulicz's disease (symmetrical enlargement of the salivary and the lacrimal glands) by means of Roentgen-ray and radium therapy, in small dosage; this corroborating several previous writers. The source was held at a somewhat considerable distance, with thin filters interposed. After six months the patient was cured, both as to this local affection and his general wellbeing.

CHRONIC INTESTINAL STASIS

A great deal has been written, during the last two years, about intestinal stasis, the most attention being given to its operative correction; Lane recommending mineral oil, or liquid petrolatum, for the amelioration of the symptoms. This subject is again discussed at considerable length in the February number of *The Pan-American Medical and Surgical Journal* by K. Winfield Ney, who epitomizes the medical treatment as follows:

The treatment of intestinal stasis "consists in the use of liquid petrolatum in 1-2- to 2-ounce doses after meals, to correct the constipation; intestinal antiseptics, to combat subinfection; exercise, to develop the abdominal muscles; together with a well-fitting abdominal support."

With such a regimen, Doctor Ney declares, he has succeeded in securing for his patients a fair degree of comfort; thus obviating operative intervention. Of course, he believes it unreasonable to expect such treatment to

release constricting bands or adhesions, to shorten or correct a redundant colon, or to repair a deranged ileocecal valve.

The use of the mineral-oil treatment is becoming more and more popular with the medical profession, and whenever inveterate constipation refuses to yield to ordinary methods of treatment a careful trial of the oil treatment should be instituted before resorting to surgical measures. In addition, intestinal antiseptics, among which undoubtedly the sulphocarbolates are the best, are indicated in virtually all these cases.

EUPHTHALMINE AS A DIAGNOSTIC MYDRIATIC IN THE AGED

Objections more or less serious attach to the various mydriatics employed by ophthalmologists, some of which E. Schmerl, of the Charité eye-clinic at Berlin, enumerates as follows (*Woch. f. d. Ther. d. Aug.*, No. 17; cf. *Ther. Monatsh.*, p. 538):

Homatropine may continue the pupil dilated for fully forty-eight hours. Ephedrine does not always cause sufficient dilatation and is too unstable. Cocaine is liable to produce, in old people sometimes very disagreeable opacity (clouding) of the cornea. However, these objections the author does not find in euphthalmine, which he has employed in the cases of 150 persons, all more than 70 years of age.

Schmerl instills into the eye 2 drops of a 5-percent solution of the euphthalmine, occasionally repeating this once; after the expiration of from thirty to forty-five minutes there generally is maximum mydriasis, at any rate always sufficient. Not once did there occur glaucoma—neither in 500 others whose ages ranged between 30 and 40 years—and never any aggravation in glaucoma-patients. There never was clouding of the cornea, nor could increased tension be established tonometrically.

Only the high price of the drug, the author opines, may militate against its wider adoption. Chemically, this synthetic is the hydrochloride of methylvinylidiacetone-alkamine, and it forms white, soluble crystals.

ANESTHETIC OF CHOICE IN APPENDECTOMY AND IN LAPAROTOMIES

After rehearsing publications of Reiohel (1900) and Amberger (1909), besides those of Lippel, Hierlin, and others, who have theorized upon the bad results following narcosis with chloroform in abdominal operations

during the stages of acute inflammation (icterus, hebetude, coma, etc., and which these writers have ascribed either to postoperative sepsis or to degenerative processes of the vital organs), Dr. Sprengel, in an address before the German Society of Surgeons (March 26, 1913), expressed the opinion (*Muench. Med. Woch.*, 1913, No. 15) that these after-effects in reality must be considered as due to delayed chloroform toxicosis.

Having arrived at this conviction, Dr. Sprengel has not employed chloroform for anesthesia, under the conditions named, since October, 1911, and has not encountered a single case of postoperative trouble of that nature; although during the period of February to the end of September he had to record 6, and 3 of these ended fatally. Hence, he advises absolute abandonment of chloroform-narcosis in the laparotomies designated, and substitution (he inclines to think) of ether and morphine.

Crile has undoubtedly thrown more light upon operative and anesthetic dangers than any other man, and has shown how to avoid them. In a few words, the ideal plan is to prevent preoperative fear by using hyoscine and morphine, to escape operative shock through blocking off the nerve-trunks with a local anesthetic, and by using nitrous oxide and oxygen—and ether in prolonged anesthesia; these methods are most efficacious in disposing of postoperative discomforts and dangers.

ENDEMIC GOITER NOT PETROGENOUS (WATER-BORNE)

Because of its economic importance, the question of the etiology of endemic struma and cretinism is given much attention by European, particularly Swiss, pathologists. Among the various theories advanced, the one ascribing the condition to certain drinking-waters is, perhaps, the oldest and most prevalent. Of late, Bircher and Wilms, among others, investigating goiter-infested communities in central Switzerland, have claimed to have proven indubitably the petrogenous (of waters impregnated from certain geologic formations) hypothesis; although he by no means has convinced various other authoritative writers (Taussig, Weichardt, Hesse, etc.).

In support of his theory, Bircher (a Swiss) has particularly pointed out a town called Ruppenwil, where struma formerly had strongly affected the populace, but had entirely disappeared twenty-eight years ago,

after the local (alluvial) well water had been replaced by a Jura-water conducted from a distance. Many were convinced, including men connected with the Hygienic Institute of Zurich—among them Dr. Th. Dieterle, Dr. L. Hirschfeld, and Dr. R. Klinger; when, however, these three instituted systematic and searching investigations, they found Bircher's claims wanting. Their findings were published in the *Muenchener Medizinische Wochenschrift* (Aug. 19, 1913); unfortunately, we cannot reproduce the details of their elaborate work, in which pathologists, chemists, and geologists participated.

To begin with, the town of Rupperwil, we are informed, by no means is free from struma and albinism, as many as 29 percent of the inhabitants having been found afflicted. Altogether 14 communities where goiter is epidemic were visited, and 5600 persons of every age were individually examined. All possible disturbing factors were scrupulously excluded, while the localities selected had drinking-waters representing all the possible geologic strata, from triassic to alluvial. Regard was had as to place of birth, migration, communication with other infested localities, occupation, and more.

As a result of their searching investigations (to which a supplementary report has been added in the periodical named—Feb. 3, 1914), the authors definitely deny the petrogenous origin of struma; concluding, rather, that the cause must be found in specifically local conditions—the local milieu, involving general hygienic surroundings, habits of cleanliness, nature of food, soil infection, migration, contact-infection, and other factors. The strumogenic agent, it is asserted, does not attach, primarily, to any petrographic conditions, is not some colloidal substance leached out of some specific geologic formation.

Aside from the personal inquiries into the histories of the persons tested, careful and widely diversified experiments were conducted upon rats—for details of which the interested reader must be referred to the original. The general plan was, however, to use rats, of various ages, native to the locality, others brought from goiter-free regions, and those born from the latter in a goitrous community. Furthermore, these experiments were conducted in homes where goiter prevailed as well as in those where none of the family was so afflicted. And, more, some rats born in the goiter-free city of Zurich were treated with the suspected waters without their being removed. The

water fresh and boiled was given as drink, but in part also administered parenterally. All told, 480 rats were treated, at eight different stations, in the series first reported upon.

The supplementary report by Hirschfeld and Klinger is especially interesting. In the other villages, the percentages of goiter among the natives and the rats treated with the suspected drinking-waters ran nearly parallel, while in Ruppenwil the rats proved almost immune. In view of their general results, the authors claim this fact as a proof of their own position as to the milieu; for, they admit that in this place struma now is much less prevalent than formerly, but the same is true for the other localities in question. In other words, not any change in water has brought about the amelioration, but, rather, the general improvement moderately in the mode of living—cleanliness, sanitation, travel. And this is the gist of their conclusions. Exact data remain to be ascertained.

Two cases are particularly reported upon, after the information that, in Ruppenwil, of 40 rats fed on the incriminated local well water, only one developed mildly positive goitrous symptoms, aside from a few doubtful cases.

PHTHIRIASIS AND WAR

We already have published in these pages a number of articles in which reference is made to the influence of the louse in transmitting typhus fever, especially during war-time. The louse also is known to serve as a carrier for certain forms of relapsing or recurrent fever, the body-louse being more frequently responsible for these diseases than the head-louse. We know that this troublesome insect already is making itself very much at home in the trenches of the European armies, weakening the host, preventing sleep, and causing a psychic disgust which leads many officers to fear this nasty invader more than they do the enemy's bullets.

There are, as we know, three varieties of lice; the most common and best-known being the *pediculus capitis*, or head-louse, and the *pediculus vestimenti*, or body-louse. Both species are extremely difficult to rear in captivity, although in the free state they abound and multiply amazingly. However, the body-louse is said to survive longer under adverse conditions than the head-louse. Besides the foregoing, there is the so-called crab-louse, or *pediculus pubis*.

The habitat of the body-louse is that side of the underclothing next the body. When

sucking the blood of its host—a matter which it attends to at least twice a day—it is anchored to the clothing by the claws of one or more of its six legs. Free lice on the skin are rarely found, while the underside of the shirt often is alive with them.

The life-cycle of the insect, as indicated by the experiments of Warburton, is as follows:

Incubation period: eight days to five weeks.

From larva to imago: eleven days.

Nonfunctional mature condition: four days.

Adult life: male, three weeks; female, four weeks

The following rules have been prepared by Shipley (*Brit. Med. Jour.*, Sept. 19, 1914, p. 497) and others for the use of soldiers desirous of ridding themselves of the lice:

1. Search your person as often as possible for signs of the presence of lice—that is, their bites. As soon as these are found, lose no time in taking the measures noted under paragraphs 4 and 5.

2. Try not to sleep where others, especially the unclean, have slept before. Consider this in choosing a camping-ground.

3. Change your clothing as often as practicable. After clothes have been discarded for a week, the lice usually are dead of starvation. Change clothes at night, if possible, and place your clothing away from that of others. Jolting of carts in transport aids in spreading the lice, which also become disseminated by crawling about from one kit to another. Infested clothing and blankets, until dealt with, should be kept apart, so far as possible.

4. All discarded clothes, such as shirts and vests, should be collected and burned or buried or put under water. Socks are not so important as body-clothing, as lice rarely affect the forearm, the hands or the feet. Cholera-belts were, in many cases, early discarded in the South African war, owing to infestation with lice.

5. If lice are found on the person, they may be readily destroyed by the application of either petrol (gasoline), paraffin-oil (kerosene), oil of turpentine, xylol or benzin to the head in the case of head lice. The application may be repeated in two or more days if the infestation is heavy. Fine combs are useful in detecting and removing vermin from the head. Tobacco extract has been advocated, failing other available remedies. In the case of body lice, they can be killed as follows: Underclothes may be scalded, say once in ten days. Turn coats, waistcoats, trousers, and so on, inside out, examine beneath the folds of the seams and expose these places to as much heat as can be borne, before a fire, against a boiler or a jet of steam from a kettle or boiler allowed

to travel especially along the seams (the clothing will soon dry); if available, a hot flatiron may be used to kill vermin in clothing. benzin or kerosene will also kill nits and lice in clothing.

6. So far as possible, avoid scratching the irritated part.

7. Privates would benefit by instruction in these matters.

8. Apart from the physical discomfort and loss of sleep induced by the attacks of lice, it should be noted that they have been shown to be the carriers of typhus and relapsing fever from infected to healthy persons. Typhus, especially, has played havoc in the past, and has been a dread accompaniment of war.

ABORTIVE SEALING-UP TREATMENT OF GONORRHEA

Additional information on the subject of the title has been published by E. G. Balenger and O. F. Elder, of Atlanta (Ga.), the following data being quoted in the *Zeitschrift fuer Urologie* (1914, p. 31).

Briefly, this method of cutting short a recently manifesting gonorrhea—that is, when the discharge has existed not to exceed forty-eight hours—consists in filling the urethra, by means of a urethral syringe, with a 5-percent solution of argyrol (after first urinating, of course), and then sealing up the meatus with elastic collodion; the medication being retained for six hours. This procedure is repeated once daily for five days.

In this way, the authors have treated some 650 victims, and 90 percent of cures are attributed to it.

MORE ABOUT COAGULEN AS A HEMOSTYPTIC

Coagulen Kocher-Fonio, noticed before in these pages, continues to elicit favorable reports in the German medical press. Thus, Th. v. Mutschenbacker, of the Surgical Clinic at Budapest (*Dent. Med. Woch.*, 1914, p. 1669), affirms the importance of coagulen as a physiologic, and consequently definitive, hemostyptic agent, superior to adrenalin, in that no danger of after-bleeding is involved, as from the latter. Applied to bleeding wound surfaces, in 5- or 10-percent or stronger aqueous solution, it quickly causes hemic coagulation.

So also E. Juliusburger, of the Wenzel-Hamke Hospital at Breslau (loc. cit.), speaks

highly of coagulen. This writer has tried it also for internal hemorrhages, such as hemoptysis and gastric bleeding, with prompt result—so it appeared to him. The freshly prepared, unfiltered 10-percent solution was injected into a vein.

Dr. A. Albrecht, of the Second Gynecologic Clinic at Muenchen (*Zeitbl. f. Gyn.*; cf. *Ther. Monatsh.*, 1914, p. 709), corroborates the assertion of previous writers, that coagulen acts promptly as a styptic when applied to bleeding parenchymatous surfaces, notably of the womb. On the other hand, the remedy is without effect upon arterial and more serious venous bleeding or essential menorrhagias; so, also, when injected hypodermically. Neither does it demonstrably shorten the period of coagulation. In addition, Albrecht pronounced the intravenous administration dangerous.

BLINDNESS CAUSED BY ATOXYL

R. Steinebach, of the Municipal Hospital of Dortmund, reports the case of a man (*Berl. Klin. Woch.*, 1914, p. 1116) who almost completely lost his eyesight after the ingestion of a total of only 1.2 Gram of atoxyl in the course of twenty-six days, the optic deterioration setting in a few weeks after cessation of the medication. The author points out that thus far the lowest amount (total consumed) of atoxyl reported as having caused blindness is 3.4 Grams; but here 1.5 Grams of arsacetin had been given in addition.

Inasmuch as Steinbach's patient was an alcoholic, he assumes the preexistence of a latent predisposing lesion of the nervous system, and, so, he enjoins extra caution in the administration of atoxyl in drinkers, as also when there exists cachexia, autotoxicoes, and infections of the nervous system.

TOXICOLOGY OF PHOSPHORUS

Phosphorus, in toxic doses, greatly increases the destructive metabolism of the albumin of the body, as a consequence of which we see the fatty degeneration of the tissues taking place. Recently H. Rettig, of the Medical Clinic at Heidelberg (*Arch. f. Exp. Path. u. Pharm.*, 1914, p. 345; cf. *Ther. Monatsh.*, 1914, p. 604), has demonstrated upon dogs, that the rapid disappearance of protoplasm caused by phosphorus can almost completely be prevented by the administration of large amounts of carbohy-

drates (sugar, etc.), so that the usual organic fatty degeneration does not take place.

The author deduces from this fact that a specific toxic action of phosphorus upon albumin metabolism quantitatively can play only a very small role.

TOXIC SIDE-EFFECTS OF EMBARIN

That embarin (one of the newer arsenical compounds), while ordinarily well tolerated, is not devoid of untoward action, is proven by accumulating reports among them one by G. Merzbach, of Berlin (*Muench. Med. Woch.*, 1914, p. 1231). In two of his patients, pronounced influenza-like symptoms appeared, while the temperature rose to 39° C., in one, after the third injection, in the other, after the fifth. L. Halberstaedter, of Berlin (*Ther. Monatsch.*, 1914, p. 605), saw the temperature go up to 41° C. in one patient, whose general condition also became very bad.

NEW FACTS ABOUT THE ETIOLOGY OF INFANTILE DIARRHEA

I have been much interested in some reports of the work of Metchnikoff and two of his assistants at the Pasteur Institute (Bertrand and Berthelot) as to the intestinal flora found in infantile diarrhea. Abstracts of these reports appear in *The Bulletin de L'Institut Pasteur*, September 15, 1914, pp. 739 and 740.

For four years, Metchnikoff has been presenting decisive proof of the fact that the gastroenteritis of children is an infectious disease, which can be transmitted to the chimpanzee and rabbit. Also the ingestion by animals of fecal matter from infants suffering from gastroenteritis provokes a grave intestinal infection. Furthermore, Professor Metchnikoff has succeeded in reproducing the disease in two chimpanzees and in an orang-utang, as well as in numerous rabbits. In four anthropoid apes, the disease made its appearance within four days after infection. Two of the monkeys, the chimpanzees, and the orang died as a result. Necropsy of the chimpanzee revealed the presence of lesions virtually identical with those found in infants who had succumbed to gastroenteritis. Not all the anthropoids were equally sensitive, but six out of eight animals contracted the disease. The inferior monkeys showed themselves refractory to it, and the results were negative in mice. Little rabbits at the breast, given infected stools, contracted the disease, which resembled experimental cholera in all points, the symptoms and the lesions being

identical. Bacteriological study alone will permit of an exact diagnosis. However, the mortality among the rabbits infected with infantile diarrhea was less than among those suffering from Asiatic cholera.

Professor Metchnikoff believes the proteus vulgaris to be the etiologic agent. His investigations during the last four years have confirmed this hypothesis. This organism was encountered in nearly all of the cases of infantile diarrhea studied by him; to be exact, in 204 out of 218 patients. On the other hand, in healthy nurslings, the microbe was found only twice in six infants brought up at home, and in 18 out of 33 children brought up in nurseries. The cultural experiments and the tests upon monkeys already cited seemed to prove the specific role of this organism.

The results obtained by Metchnikoff are verified by Bertrand, who, in 55 cases of infantile diarrhea studied in London, was able to find the proteus vulgaris in every one, without exception.

As to other microbes which might be considered as etiologic factors in diarrhea, the bacillus pyocyaneus was encountered but 3 times, the bacillus dysenteriformis, 15 times, and the enterococcus, 8 times. In 24 nurslings who presented no digestive symptoms, plating of the stool revealed the presence of the proteus twice only. In one of these, the child had suffered from diarrhea, with green stools, three weeks before. In the same 24 cases, the bacillus pyocyanous was observed once, the dysenteriformis, four times, while the enterococcus was more frequent than in the pathologic stools.

Berthelot studied the symbiosis of the proteus vulgaris and bacillus aminophilus intestinalis, the latter being isolated from the feces of a patient suffering from a persistent intestinal ailment. The latter bacillus is said to be closely related to the bacillus lactis aërogenes. If this organism is cultivated in milk on which the proteus vulgaris is growing, a filtrate may be obtained that appears to be less toxic than that obtained from a pure culture of the proteus. Furthermore, if white rats are given the two microbes together, a diarrhea appears which is rich in mucus and very acid, terminating in death in ten to twenty days, or even, occasionally, in four to eight days.

Berthelot studied the toxicity of the fecal matter of the sick animals. The symptoms observed after the intravenous injection of fecal extract were similar to those obtained by injecting 1-2 milligram of imidazoethylamine, a substance which may be formed by the

action of the bacillus aminophilus on the histidin liberated by hydrolytic action from alimentary casein and in the hemoglobin of the blood. The author has experimented with vaccine-therapy, with promising results.

THE BULGARIAN BACILLUS IN TYPHOID FEVER

Knowing of the value of cultures of the Bulgarian bacillus in colitis and in the summer diarrheas, both of infants and adults, H. A. Collings (*Calif. State Jour. Med.*, Feb., p.69) some time ago began to use this agent in the treatment of typhoid fever. The results obtained have been very encouraging. He reports three cases in detail.

In the first, the patient was showing a temperature of 104° F. when first seen. Three days later, it dropped to 99 degrees, and thereafter did not rise above this point. There was no backache or tympanites after the patient came under the influence of the lactic-acid ferment.

In the second patient, a child of 9 years, the temperature was 104° F. when first seen. After an initial purge with calomel and magnesium sulphate, the Bulgarian bacillus was given. The temperature rapidly dropped to 98 and 99 degrees. The child was first seen on April 21, and on the 30th of the same month she was sitting up in bed, playing with her doll.

The third case was that of a woman 87 years old. After the initial cleanout, the Bulgarian-bacillus tablets were prescribed, and the patient got along very nicely thereafter. Headache was present throughout the disease, but there was no backache and no tympanites. She made a favorable recovery.

Of course, other indicated remedies were employed. Doctor Collings believes that through the use of the Bulgarian bacillus it is possible to avoid the dangerous tympanites, with subsequent perforation and death.

He writes that any of the commercial products of the organism are acceptable, but on the whole, he considers the liquid cultures best. His suggestions are worthy of careful consideration.

SOME REASONS FOR THERAPEUTIC NIHILISM

One good reason for the prevailing therapeutic nihilism, according to S. W. Dickinson (*Charlotte Medical Journal*, January, 1915, p. 20) is the uncertain character of many of the official drugs on sale in this country. In

support of this opinion, Doctor Dickinson quotes from an article by Martin I. Wilbert, published in *Public Health Reports*, May 8, 1914. In this article Doctor Wilbert says:

"A compilation of the analytical reports embodied in previously published bulletins shows that out of a total of more than 9000 samples of six pharmaceutical preparations reported on during the years 1907 to 1911 inclusive, more than 4000, or approximately 45 percent, were found not to be in compliance with the Pharmacopeia."

It is further shown that fully 50 percent of such commonly used medicinal substances as aromatic spirit of ammonia, spirit of camphor, tincture of opium, spirit of peppermint, and spirit of nitrous ether, were adulterated or below standard. It is also found that of 718 prescription scales examined, 195 were condemned; of 11,478 prescription weights examined, 5362 were condemned; of 3761 graduates examined, 154 were condemned.

While conditions have probably improved somewhat since the collection of these statistics, there is no doubt that many of the official preparations sold in drugstores are of inferior quality or inaccurately dispensed. Much of the trouble is undoubtedly due to the readiness with which many of these preparations deteriorate under the conditions found in the average pharmacy. That there is frequent dishonesty on the part of the druggist, we do not believe for one minute. One remedy will be found, as Doctor Dickinson himself suggests, in a wider use of alkaloids and active principles.

THE BEDBUG AND ITS BITE

According to Shipley (*Brit. Med. Jour.*, Sept. 26, 1914, p. 527), the common bedbug seems to have arrived in England at about the same time as the cockroach, that is, some four hundred years ago. Apparently it came from the East and at first was confined to seaports and harbors.

Like the cockroach, the bedbug (*cimex lectularius*) is a frequenter of human habitations, but only of such as have reached certain stages of comfort. It is said to be very rare in the homes of savages, although it is only too common in the poorer quarters of great cities. Its presence does not necessarily indicate neglect or want of cleanliness, since it is very likely to get into trunks and luggage generally, and in this way may be conveyed even into the best-kept homes. It is particu-

larly common in ships, especially in immigrant-ships, and the writer suggests that very likely it came to the continent of America with the Mayflower; in which event it may be cited as "one of our first families."

Doctor Shipley remarks that this insect undoubtedly has considerable success in the struggle for life, as a result of its energy and determination, quoting as evidence the words of a nameless American poet, who sang:

The lightning-bug has wings of gold,
The June-bug, wings of flame,
The bedbug has no wings at all,
But it gets there all the same.

The eggs of the bedbug are pearly white, oval-shaped, and at one end have a small cap surrounded by a projecting rim, which is pushed off by the young bug when it hatches out, after an incubation period of a week or ten days. There is no caterpillar or chrysalis stage, the young being structural miniatures of their parents; however, they pass through a series of moults (five in number) before finally the perfect adult emerges.

This takes place about the eleventh or twelfth week after hatching; it is necessary, though, that the insect be fed after each moult, in default of which the following moult will be indefinitely postponed. From this it follows that in their developmental stages they must make a meal on some convenient animal (presumably the human) before they become well developed, healthy adults.

The bugs can, however, live a long time between meals. Instances have been recorded in which they have been kept alive for more than a year, one time incarcerated in a pillbox. When the pillbox was opened, the bugs appeared to be as thin as paper and almost transparent, nevertheless they had managed to produce some offspring.

Doctor Shipley declares that there really is no evidence to incriminate the bedbug as being responsible for either typhus or relapsing fever. While it is possible to transmit plague experimentally by means of them, yet, there is no epidemiological reason for supposing that this takes place to any extent in nature.

Of methods for destroying the bedbug, Shipley refers to fumigation with hydrocyanic acid gas and with sulphur fumes. The first method involves considerable danger, and should be carried out only by fully competent persons, under the most rigorous conditions. Burning brimstone for four or five hours in a room perfectly sealed is said to kill the bugs; but, to insure success, Doctor Shipley believes a longer time is needed. Two pounds of sulphur, he says, will suffice for every 1000

cubic feet of space; it being best, though, to leave the rooms closed for twenty-four hours.

Localized methods of destroying bedbugs include the liberal application of benzin, kerosene or any other volatile petroleum distillate. These must be introduced into all crevices or cracks by means of a small brush or feather, or injected with a syringe, or oiling-can. Oil of turpentine or a solution of corrosive sublimate have also proved effective, and the same is true of boiling water, when this may be used. Recently, the "flares" used by painters to burn off paint have proven of great value in ridding matchboarding or wainscoting of these and other vermine. Passed quickly along, the flame does not burn the wood, but it produces a temperature which is fatal to the bugs, the young and the eggs.

SUGGESTION FOR AN IMPROVED GRAPHIC METHOD FOR THE BLIND

Studies concerning the tactile and the muscular senses are growing in importance both from a biologic and a clinical point of view, and one among the investigators in this field is Prof. Dr. Adolf Basler, of the Physiologic Institute of Tuebingen. Comparing his work with that of, for example, Donaldson, St. Hall, Goldscheider, Leube, Gruetzner, this writer is convinced that the muscular sense as opposed to the cuticular sense of touch is more acute than has been believed.

Pasler's experiments, as described in the *Muenchener Medizinische Wochenschrift* (1913, No. 33), are decidedly interesting and cannot fail to become of practical value in several directions; what most attracts our attention, however, at this moment, is the possibility of applying his results in devising an entirely new and superior substitute for the Braille system of tangible writing.

The principle involved may be stated in a few words. A metallic plate is connected with an electric apparatus giving an interrupted current. Properly adjusted, these electric vibrations will be felt by the sensitive fingertips as a kind of tickling. If now portions of the plate are covered with a non-conducting substance, the fingers passing over them will become aware of these nonelectric points, while the spacial sense will give information of the shape of the nonconducting layers. Thus, then, using tinfoil sheets, for instance, and writing with, say, glass-ink, the blind would be placed in position to read ordinary prints, even common script writing, in conjunction with the proper apparatus. What a boon if this idea actually can be practicalized.

Miscellaneous Articles

Current Comment by a Country Doctor

LOBELIA.—Although lobelia inflata probably was an important remedy in the crude though often successful practice of the North American Indians (and from them was introduced by the colonists into domestic practice), the first conspicuous notice it obtained in medical history was from the casting of Samuel Thomson into the jailhouse in 1809, for the alleged killing of a patient by its administration. If history be even approximately true, it was hoped that exposure and suffering incident to confinement in a grossly insanitary jail would do away forever with Thomson and his revolutionary ideas. They did not even give the doctor a bit of the weed to chew as a relaxant to his feelings, although it is stated that, when the case came up for trial, the attorney for the defense ate freely of the accused herb, and that the prosecution failed to exhibit either botanical or therapeutic knowledge of this plant. If Thomson's ghost is now marching on and interested in modern galenical therapy, it is having the pleasure of seeing lobelia inflata at last coming into a well-merited recognition; especially so since the main active principle, lobeline, has entered the field.

It seems to have been quite a Thomsonian routine to use lobelia as an emetic, on the theory that every sick person needed cleaning out. It was far better than the then prevalent phlebotomy, and the "cleanout" idea was not a wrong one, although it is probable that the early botanic physicians had a full realization of the value of the herb as an equalizer of circulation and general relaxant. Perhaps we do not resort to the emetic, in these modern times, as often as we should, although, when dealing with suspicious stomach content, apomorphine given with the hypodermic needle is better and more up to date than lobelia.

After all, lobelia was a pretty good drug to have to go to jail for, and in this day of accurate therapeutics and active-principle medication it is leaving its position of apolo-

getic toleration as official in the U. S. P. and becoming recognized as an agent of importance.

While the greatest field of usefulness of lobelia or lobeline is in respiratory disorders, especially of a spasmodic tendency, and where expectorant effect is desired, it can be used to advantage in many other conditions. In the presence of a slowly dilating os, it has its indications, either alone or in combination with caulophylloid. The failure of the latter drug alone always suggests to the writer the desirability of also giving either lobeline or gelseminine. Whenever a general relaxant of prompt and certain action is required, the effect should never be overlooked, especially in spasms of various kind, whether they be those of childhood or in the awful manifestations of eclampsia. Lobeline can safely be pushed until one gets relaxation or diaphoresis, or emesis occurs.

The value of the drug as an inunction frequently is overlooked, and many a time one will be surprised by the results from a little lobeline in lanolin rubbed in thoroughly where local relaxation is required, especially in the uterine and abdominal musculature. The writer remembers one instance upon which Thomsonianism, or fence-corner therapeutics (name it what you will), and lobelia served him well. It was a case of strangulated hernia. Everything, from taxis to heat, had been tried, and it looked as if it were a case for prompt open operation. Operation in the backwoods, with the operator acting as his own anesthetist, assistant, and trained nurses! Just then the extravagant claims of an old botanic practitioner regarding the wonderful effects of Indian tobacco came to mind, and straightway a successful search for that weed was made and this used in the shape of hot fomentations; the heat being retained with oil silk. This resulted in sufficient relaxation to reduce the hernia. "Just the result of more heat," I hear some one say: Perhaps so; still, there is no greater relaxant than lobelia inflata, so, it gets the credit.

Lobeline sulphate has now largely replaced the bottle of the tincture which for many years has held its place on the writer's shelves; but, he must have lobelia. It is one of the drugs of everyday use, a drug of well-defined indications and certain results. However, it is also an emergency-drug, and sometimes a resource-drug when one is "right up against it" and wishing he had more resourcefulness of brain or someone else who did.

Malaria.—And now comes the mosquito, and with it comes the malarial plasmodium, which it honors as an intermediate host. Just why it is that, with the way pointed by modern science to get rid of one curse of mankind, the public does not avail itself of the means at its disposal and do so, is an unanswered question. It may be just apathy of the human animal in his present stage of evolutionary development; anyway, we still lack society's organized effort to stamp out completely the disease. Even screening often is neglected, while but too frequently the frogpond remains undrained until the seemingly more important economic necessity of using its bottom for agricultural or other industrial purposes impels. Still, as long as the people will have malarial fever, it will remain up to us to cure it.

The treatment of malaria fevers presents certain simple fundamental principles, yet, a multitude of different phases as the individual cases present themselves. Since Laveran's discovery, in 1880, of the organisms causing the three general types of malaria, and the additional later development in our knowledge of the etiology and natural history of the disease, we know that we deal with conditions caused by organisms that invade the red blood-corpuscles and at certain definite periods (when single infection is present) sporulate, with a resultant pathology because of mechanical disintegration of the corpuscles as well as of deprivation of the system of properly adjusted material for metabolism, and, hence, the generation of toxins resultant upon the life-process of the invading micro-organisms. The strength of the invading force, less the resistant power of the individual, manifested in points of greatest susceptibility, plus the medicinal agents introduced, is the sum of the mixed and difficult to estimate proposition.

The salts of cinchona still are the chief reliance in combating malaria, and the one used oftenest is quinine precipitated with the SO_4 radical. Like many other useful drugs, cinchona had an empirical advent, with a later demonstration of its being "rational."

Although other agents are of marked value as antiperiodics, none have as yet been demonstrated to possess the value of quinine; although it is to be hoped that, with awakened interest in the active principles of our native galenicals, this will not always be so.

The writer, while using other antiperiodic drugs, believes that quinine can be employed in practically all cases, regardless of any idiosyncrasy. By this he does not, however, mean quinine sulphate; for, he considers that to be the least therapeutically available in the multitude of symptom-complexes caused by invasion of the malarial plasmodia.

When selecting an alkaloid, we always think of the physiological action caused by the radical of the precipitating acid. Thus, either the hydrobromide, ferrocyanide or valerate are likely to be the first thought for internal medication in acute cases, unless the added arsenic-effect is desired. The arsenate more often is available in the chronic forms; while the hydrobromide never is used continuously by the writer, he objecting to continued use of the bromine radical. When selecting the ferrocyanide, we think of the sedative influence of the cyanogen radical, and remember that the ferrocyanides have not the toxicity of the usual CN combinations; also that the freeing of Fe in the formation of end-products will probably be serviceable in hemoglobin building. The valerate will be of value in many selected cases, especially where the quinine-idiosyncrasy seems strongly developed, but where we wish to push the quinine molecule beyond the point available in the ferrocyanide.

It is not the purpose here to dwell upon the other antiperiodics, although many, including salicin, are not to be forgotten. When the writer sees the case at the algid stage, he straightway breaks the chill, mostly giving glonoin; not hypodermically, though, the drug being so readily absorbed from the buccal mucosa; moreover, proper sterilizing and boiled water often are not instantly available. Give the patient a dose or two to "suck up like candy." A few whiffs of amyl nitrite also will bring the circulation to the periphery and break the chill very promptly.

As soon as the chill is broken, aconitine comes in oftener than anything else, frequently to be aided by a dose of pilocarpine. Sometimes the indicated drug in this stage will be gelseminine; probably it is not being prescribed often enough, but usually aconitine is called for. Cactus, as a rule, comes in later. The writer is not afraid of the collapse

of a toxin-stimulated heart. Of course, at the earliest possible moment liver stimulation has been started, and reasonable catharsis looked to. Calomel, bilein, and podophyllin usually are entirely efficacious in these cases.

With *secretions established*, we go to our selected form of quinine and push it, to prevent, the next chill, if possible. The battle in malaria, as in other diseases, is largely one of the leukocytes, and, hence, echinacoid and nuclein will be of aid and logically indicated in many instances. Intestinal antiseptics must be looked after always, and here the sulphocarbolates are our sheet-anchor.

If a patient is in an unscreened or improperly screened house, the writer tries to correct this condition by calling attention to the fact that a focus then exists from which the disease will surely be spread by the mosquitoes; but even at this day it is difficult to impress the importance of this fact upon some of the ignorant folk, white no less than black. The teaching of preventive medicine, whether by the individual or the state, still is slow. The writer's clientele is far from the point where they will realize that it is better to employ him to prevent sickness than to cure it. Most of them think that he should look wise, ride hard, and give a big dose or a big bottle of medicine, otherwise he is not entitled to his "immense" emoluments.

Analysis of this big-bottle proposition has proven that at times it is not possible to get the best results without yielding to this notion. "Them there little pills what doc left ain't no good." Sometimes we find that the psychological effect of the big container is necessary in the present state of public knowledge and to give in bulky solution that which would be as well administered in more compact form. It takes time to educate people up to the point where they realize that they can, to advantage, furnish their own water, letting nature provide any aiding solvent required.

The summer babies.—Eliminating trauma, including the improperly adjusted safety-pin, and the exanthemas, the main source of summer baby complaints will be found in the alvine tract. It does not take much irritation to make the baby sick, also, very little to excite the ordinary mother. That same mother is very likely to be giving carbohydrate excess in advance of the establishment of proper ptyalin secretion; or to be committing other like error. Often all the baby needs is an enema, a high one, if possible; also, some "tenths" of calomel and ipecac,

with aconitine exhibited according to Shaller's rule, and then a "nice big" dose of castor-oil. Follow this treatment and correct the diet, and often the baby soon is well.

Delayed dentition is a factor to be looked out for, and at times can be corrected by giving calcium phosphate, to aid tooth development—according to Shuessler's cell-salt theory. In certain mothers, lack of care of their own nipples may cause bacterial infection, and the unspeakable "pap" and the dirty rattle deserve investigation. The unsterilized bottle, especially the unsterilizable and criminal tube-bottle, must not be forgotten; likewise the gifts of admiring neighbors to the future president (this term used advisedly, because of the probable coming of the franchise for both sexes), whose offerings take the form of dietetic horrors, is another fruitful source of trouble.

The subject of diet is too long to enter into here, but the remark is made in passing that the complicated search for available baby-diet may be greatly helped by the use of a little pepsin or papayotin, small amounts of berberine or brucine also to be used to stimulate normal digestive secretion.

The closing observation is made that, ten to one, the baby has on too much clothing. Have the mother make the garment as close to a diaper and a sack as possible, and have her stop giving the babe real or fake alimentation every time it howls, when a nice tepid bath would make it go to sleep and take a needed nap.

A. L. NOURSE.

Sawyer ville, Ala.

GENERAL PRACTITIONERS AS REFRACTORIONISTS

Your editorial in the March number of CLINICAL MEDICINE relative to the recent articles on "Refraction for the General Practitioner" prompts me to offer a few observations along this line for the columns of your splendid journal. For one thing, I certainly was surprised to learn that you received but one protest against the suggestion that all general practitioners should become refractionists. I do not mean protests from jealous specialists who may be afraid that such a course might result in a loss of business to themselves, but from those members of the profession who rank as "general practitioners," but who have spent the time and the money thoroughly to prepare themselves for this work.

I fully agree with you, that a physician should neglect no line of investigation promising to make him a better diagnostician. There is no doubt that many cases of severe nerve-strain, headache, stomach trouble, and those chains of conditions dependent upon nerve reflexes have been wrongly diagnosed, because the physician failed to recognize the fact that the trouble resulted from eye-strain.

I believe that every physician should keep a test card in his office and study its use. He should know enough about the abnormal conditions of the eyes to guard against overlooking a serious eye-strain; but, for a man to read a book or two or a series of magazine articles or even take a correspondence course and then pose as a capable refractionist, is but to make a fool of himself and a stumbling-block for his brothers who really have spent the time and done the necessary work to make themselves proficient in this branch.

Now, understand, please, that I speak from the standpoint of a country doctor who makes some little pretense as a refractionist. I believe I could do a fairly creditable job at refracting eyes before I began the study of medicine, as my father was one of those jeweler-opticians whom we are so prone to make light of in medical journals. Let me say, however, that his knowledge was not gleaned solely from journals and correspondence courses, but from actual study and clinical work with an expert refractionist; and I believe his work compared favorably with the best. Thus, you see my deductions are drawn from experiences and comparisons from an unprejudiced viewpoint.

We, as physicians, and more especially as specialists, are prone to look upon the optician as a joke and to take it for granted that his methods and his work are of an inferior grade.

It is high time, brothers, that we look at this matter in a different light. The men who now are able to pass the state-board examinations in optometry, as it is required here in Iowa and in a number of other states, to a large extent are men who have made a thorough study of this science, and it behooves us, as physicians, to equip ourselves as thoroughly for the work as have these men with whom we shall be compared by the public.

Now, I imagine I see some brother, exploding with righteous indignation, rise to assert that the work of a member of our honorable profession should never be compared with that of a "common" optometrist. Well, possibly not in your locality, provided you live in a physicians' Utopia where time-honored customs still

hold sway and the doctor receives due homage and is placed at the head of the funeral procession. Here, in free-thinking Iowa, however, men are judged by their works, regardless of the profession they may have the honor to represent; and the only way to retain the confidence of our patients is, to "deliver the goods."

The physician, with his knowledge of anatomy, physiology and coordination of muscles and nerves, should be far superior, as a refractionist, to the optician; and doubtless he would be if he were to put the same amount of work and study upon the subject as do our modern optometrists. The trouble is, that the large majority of our refracting physicians have not thoroughly prepared themselves in this branch, and the result is, that the general public are beginning to look upon the optician as a person as capable of doing this work as is the physician, and I blush to admit that investigation often proves their belief to be well founded. And, say, boys! when our patients' confidence once begins to slip, no matter what the cause, it is but a step for them to believe that their druggist, with his wise (?) therapeutic suggestions, such as are taught in the courses of instruction as sent out by the various cure-all-making companies, is as capable of prescribing for his ills as is the physician.

My nextdoor neighbor is a jeweler-optometrist. When he is not fixing watches, he is studying optics. When I am not driving over country roads or hurdling snowbanks, I am catching up with my laboratory examinations or reading up on various cases met with in my work, while attending to a considerable office practice between times. Now, which one of us has the best chance for advancement in the science of optics? If I had not made a special study of this branch for years and only recently left my office for several months in order to "brush up" on the subject with some of our best ophthalmologists, I certainly should make easy picking for such competition. And there are thousands of instances just like this all over the country.

Therefore, I beseech ye, brethren, if we feel inclined to take up some such work which really belongs to the "specialties," let us not do it in a halfhearted way, simply for the purpose of extracting a few more dollars from the pockets of our patients, but with an earnest desire to become as good as the best.

Let us not depend on textbooks and correspondence courses, but having gleaned all that we can from these sources, let us complete our course of study under the guidance

of some able instructor where by practical demonstrations and clinical experience we may perfect our knowledge in the chosen branch. Thus will we return with confidence in our ability, not only to do credit to ourselves, but to uphold the honor of our fraternity.

HOMER A. SMITH.

Correctionville, Ia.

[Doctor Smith's advice is excellent. The physician who wishes to be a refractionist should not be content to become a mere dabster. He should be fully qualified to do this work or he should not undertake it. I will go a step further, and say that there is no good reason why *many* general practitioners should not be doing refraction. Their general education and their medical training peculiarly adapts them to it. They have the fundamental qualifications that no jeweler or other merchant can have; and they are prepared to recognize the relation of refractive errors to general ill health, as no optometrist or optician can. The work logically belongs to the medical profession; and just as logically optometry as a profession apart from medicine can be excused only on the hypothesis that physicians are failing to do their duty.

As to how physicians should learn refraction, that is "another story." Of course it is desirable that the fitting of spectacles should be thoroughly taught in our medical schools; but it *can* be learned in other ways—even by correspondence. The essential thing is that the doctor should know it thoroughly before trying to practice it.—Ed.]

HOW TO COLLECT: A DOCTOR'S EXPERIENCE

Dr. Charles H. Haase, of Elmira, New York, has written us several very interesting letters on the subject of collections and has agreed to our publishing some of his suggestions, for the good of the cause. We have selected what we hope will be most generally helpful. Doctor Haase says that he collects over 95 percent, and that less than 2 percent of his accounts go to his attorney. This is how he does it:

"Collect your bills while they are small. Always take a payment when it is offered. Render statements monthly. Render a bill soon after service is completed, before your patron has time to forget the value of the service. Accounts that are not allowed to be forgotten are paid first. Better results are obtained when bills are sent at the middle of the month. Then they do not compete with

those of the landlord, butcher, grocer, and others.

"In collecting, use various methods. The same routine will not work with all. I respond to all day calls, but at night, if I don't know the patron, I tell him that my fee is \$3.00 and that I shall have to be paid when I get there. Ninety percent say, 'Come ahead, your money is here!'

"Our statements are a distinctive color—blue. Blue and white envelopes are used; blue after the first statement. This calls attention to our statement. I keep the accounts small and weed out the deadbeats.

"Our medical journals should print more articles on the business side of medicine."

Doctor Haase sends us samples of his statements and the printed stickers that are attached to his statements. Consecutively, they are as follows:

First:

Undoubtedly this account has been overlooked. An early reply will be much appreciated.

Second:

A statement of the above has been sent you. If it is incorrect or if there is any reason why payment should not be made, kindly call or notify us at once, and the matter will be promptly adjusted.

Third:

Every consideration has been shown you in the matter of this account. If unable to settle it in full, will you not show your appreciation by making at least a partial payment?

Fourth:

Credit was given you through confidence in your honesty and integrity. Continued faith in you today leads to the belief that you will show your appreciation by making an immediate settlement.

Fifth:

No reply has been made to the several statements already sent you. Do not, through further neglect, force the use of severe, harsh, and aggressive measures to collect this little bill.

Then, if personal work fails to secure settlement, a notice like the following is sent; then, if this also is unproductive, the account may be turned over to the secretary of the association, who conducts a collection agency.

If no response is received, the delinquent's account is turned over to the county medical society, which also conducts a collection agency.

Now, that Doctor Haase has set the ball arolling, who will be next to respond with samples of forms, successful letters or unusual methods that have collected "uncollectable" accounts? If it is true that we do not devote enough space to the business side of medicine, we want to mend that oversight.

Do not hesitate to write us concerning your collection problems. We shall try to

answer you, and, if we can, will publish your question. Possibly some other "man in the field" has successfully solved the very problem

MEMBER OF THE BUSINESS MEN'S ASSOCIATION OF ELMIRA, N. Y.

_____ 190__.

M _____

Dear _____:

Your account of \$ _____ is past due.

Please call and arrange for settlement before

_____ 190__.

All the merchants, trades and professions of the city are organized as The Business Men's Association of Elmira, N. Y. The names of delinquents are reported to each member of The Association and we are under contract to report your name on the above date if the account remains unpaid.

Yours respectfully,

DO IT NOW!

facing you, and will show you, too, how to overcome it. Let's see how much of this material we can have for the next issue of CLINICAL MEDICINE.

HYPODERMIC INJECTION IN SCIATICA

I wish to offer a suggestion to Dr. F. E. Hufnail, concerning his method of treating sciatica by means of hypodermic injections, as recommended in April CLINICAL MEDICINE (page 363). If only he will put a drop of collodion over the puncture after he has withdrawn the needle, the pain caused by it will be gone by the time the collodion is dry.

C. STANTON.

Glenwood City, Wis.

THERAPEUTIC PROPERTIES OF DOGWOOD

CLINICAL MEDICINE has just come to hand, and I am delighted with the rich contents

spread before us. As is universally the case, the editor is again exhorting us to the use of native drugs, and the last candidate he presents for our observation is the *cornus florida*, asking us if we know it. Sure, we do, and, along with the mention of the drug, come trooping the memories of the days of '61, when dogwood was substituted for cinchona and its alkaloid.

The great war between the states made medicines contraband, and the need of quinine, here in the South with its malaria was evident, and a substitute had to be found. Now, I do not believe in "substitution," but I do in substitutes; and "dogwood" made a pretty good one for quinine. And dogwood, or its active principle, cornin, might in many instances be used to advantage.

An old "doctor-book" is lying before me now, one that we used for prescribing in our sicknesses in those days. This is "Domestic Medicine," by Horton Howard, a work once published in three volumes, though it is here in one volume. It was printed in Philadelphia, in the memorable year of '61.

Making a virtue of necessity, we "took to the woods," as the saying is, and gathered our arms full of root, bark, and flower of the *cornus florida*, or, the beautiful dogwood. I say beautiful, for, in view of my open window is the forest with a lily-white petticoat made of the flowering undergrowth of the now blooming dogwood; and we are at present going through a cold snap that we call "dogwood winter," a cold spell that in this region invariably occurs in the blooming season of this shrub.

Doctor Howard, in the book named, describes dogwood as being tonic, astringent, antiseptic (a word I thought we of today had a copyright on), and stimulant; by some it is considered as equal to the cinchona bark or quinine; used in all fevers, particularly in remittent and intermittents. It may be given in the form of the powdered bark or may be steeped and drank as tea; or a tincture may be made of the berries. Fresh bark should not be used, as it is apt to affect the bowels.

The flowers have the same properties as the berries, and are used for fevers and colics. With sassafras, it may be used to clean foul ulcers.

My experience with this drug was satisfactory; still, as you observe, we should have it in more convenient form. Why does not some pharmaceutical house put a tincture or concentration or alkaloid on the market? The supply is enormous, and the fields are white with it unto the harvest. We are cutting and burning thousands of cords of it every year, just to get it out of our way.

M. G. PRICE

Mosheim, Tenn.

ABOUT APPENDICITIS: SHALL WE OPERATE?

I always enjoy reading your journal and get many helpful hints from it, but in one respect I feel inclined to take exception. I frequently see mention of the medical treatment of appendicitis, catarrhal and subacute, as to be preferred to surgical intervention, but I doubt whether I ever shall agree with you. I believe that the appendix practically never is diseased, if it is free from physical defect. Medical treatment and vaccines usually will relieve the symptoms for a time (and I believe the Van Cott combination of vaccine should be given preference); but, sooner or later, symptoms directly pointing to the appendix or intestinal sluggishness or to gallstone or gastric or duodenal ulcer appear, and very frequently the appendix is responsible for this.

Appendectomy is the quickest and safest route to health for the averagely constituted individual who hates to be taking medicine all the time and thinking about his insides, and the operation should be performed early enough to prevent any secondary conditions developing.

I should like to hear reports of the mild cases of appendicitis that have been cured by medical treatment and remained free for ten years from gastric, biliary or intestinal disturbance traceable to the appendix.

STEPHEN C. MASON.

Hermansville, Mich.

[Doctor, if you have received the impression that we favor medical treatment as a *substitute* for the surgical treatment of appendicitis, then we have not expressed ourselves clearly. Some of our contributors have written their objections to operative intervention, but we have tried to make it clear that a no-operation policy is always unsafe and may be exceedingly dangerous. There are instances—many of them, we be-

lieve—when a plan of “watchful waiting” is advisable; yet this does not mean that the operation is to be indefinitely postponed. We advise every patient suffering from appendicitis to have the offending organ removed, but in an interval between attacks, if possible. Such interval operations are practically free from danger. Of course, in every case which is rapidly progressive no delay whatever should be tolerated. Never, never wait for a gangrenous appendix to burst before resorting to surgery.—Ed.]

EMETINE SUGGESTED FOR MALARIAL HEMATURIA

I have been very much interested in the use of emetine in tropical dysentery and in pyorrhea, and am glad to see that you, as usual, are fighting for, and winning, in the employment of the alkaloids, in place of the crude drugs, whenever they are at our command.

The use of emetine in hemorrhages seems to be proving effective, and, so, reasoning from this experience, as well as from its action in amebic infection, it has occurred to me that the hypodermic of emetine should be a specific in malarial hematuria, and also effective in the other types of malaria, such as prevail in the south.

For several years, I lived in the “bottoms” of one of your southern states—in fact, until driven out by malaria—and know something of the trials and woes of the doctor called upon to treat hematuria. Consequently, if the treatment here suggested should turn out to be as good as it looks to me, it will do much toward reducing the terrific mortality from malarial hematuria.

As we have but very little malaria and no hematuria at all here, I have no opportunity to test the emetine treatment; so, if you think it worth while, it would please me to have your friends in the South give it a try-out, and report through CLINICAL MEDICINE.

W. H. PHILP.

Toronto, Can.

[Doctor Philp's suggestion is based upon sound reasoning and good common sense. Emetine has been shown to be a potent agent for the destruction of the low forms of animal life to which the malarial protozoon belongs as well as the *entamoeba histolytica* and the *entamoeba buccalis*. It is by no means impossible that it may prove as effective as quinine in treating some of the

resistant forms of malaria. By all means, let it be given a thorough trial in malarial hematuria—also in the more severe types of the disease. In any case where the quinine is not well tolerated or fails to produce the results expected, the emetine should be used tentatively. In such cases we should be inclined to begin treatment with 1-2-grain doses of emetine hydrochloride injected twice daily.—ED.]

EMETINE USEFUL FOR BLEEDING HEMORRHOIDS AND IN CONSTIPATION

I am learning something new about emetine every day. Here is the latest: A patient called to see me, with a ready-made diagnosis of bleeding piles. As this man refused any operative interference and simply wanted something to check the bleeding—which evidently he considered a simple thing to do—I gave him one dozen emetoid granules, 1-6 grain each, and directed him to take one before each meal.

That patient returned in three days and informed me that the bleeding had stopped after the first day; moreover, that his bowels were moving freely and easily. Can you beat it?

Kansas City, Mo.

F. A. WIER.

[Just how much emetine will do—just where it will succeed, and just where it will fail—we do not know as yet. However, it is one of the best remedies yet proposed for the treatment of hemorrhage of every description. That we do know. Emetine will not stop bleeding in every case, to be sure. One or two failures already have come to our attention; but, these failures are so few in comparison with the successes following the use of this alkaloid that we certainly feel inclined to give emetine "first choice" whenever we are called upon to treat any serious flux of blood in any location. See comment to Doctor Cook's article, which follows.

Of course, for quick results, the drug should be given hypodermatically in 1-2-grain doses. However, where there are oozings, as in the case of hemorrhoids, the method of treatment adopted by Doctor Wier, that is, giving small, repeated doses, and emetoid being employed instead of the pure alkaloid, certainly is worthy of careful trial.

We hope that a lot of other good observant doctors who may be called upon to treat cases of "bleeding piles" will take a leaf out

of Doctor Wier's bunch of hints and "go and do likewise."—ED.]

A FAILURE WITH EMETINE

Failures, I think, should be put on record as well as successes, so, I will report a complete failure of emetine in a plain case of epistaxis. The lady, 21 years of age, had repeated attacks of nosebleed, which nothing would stop except plugging the anterior nostrils. Seeing emetine so highly praised, I ordered one tube of the hypodermic tablets. I injected 1 grain hypodermically, without getting any result whatever. Then I sent for a specialist. The latter decided that the hemorrhage came from the plexus of capillaries on the septum, and he cauterized with chromic acid. A few days later, the hemorrhage occurred again, and I gave two hypodermics of emetine, 1-2 grain each, within ten minutes. I waited one hour, then, as the hemorrhage had not lessened a bit, I plugged the nose. In four hours I removed the plugging and cauterized again with chromic acid. I report this case to show that emetine will not cure or even diminish hemorrhage in all cases.

J. H. COOK.

New Carlisle, O.

[Doctor Cook is right, the failures *should* be reported; and we are glad to get this record of his experience in a case of epistaxis. The astonishing fact regarding the use of emetine in hemorrhage is that there are so few failures. As a matter of fact, this is the second only that has come to our attention, and the writer believes he has seen and read every report on this drug that has thus far appeared in the English, German, and French literature.

A hint as to the reason for the few failures is given by Nicola in the *Gazetta degli Ospedali*. He has noted that the emetine promptly stopped the hemorrhage in all his cases of hemoptysis, except where the loss of blood was due to passive venous congestion with low blood pressure. This accords with the observations of Raeburn, already reported in these pages; the latter found that in phthisis and chronic bronchitis emetine is a powerful decongestant, *except when there is associated low blood pressure*. Even in these cases it acts nicely, he declares, if it is given in association with a cardiac tonic. "Bleeders," we may add, probably will not respond as readily to emetine as normal individuals.

There is no remedy that does not fail occasionally. Emetine provides no exception to this rule, and we have no doubt that from time to time other men will report lack of success. In such cases, where internal medication is indicated, I hope no one will forget the value of atropine in hemorrhagic cases. See the article of Doctor Davidson, on page 571.—Ed.]

ADVENTURES OF "BILLY SPOT"—HOW EMETINE STOPPED INTERNAL HEM- ORRHAGE IN A DOG

"Billy Spot" is a lucky dog. He has a happy home and is owned by a beautiful young lady, a member of the family of one of my patients. Remember, I said, "a beautiful young lady." This has an important bearing on the case; for, where is the doctor, no matter how old, who is not more anxious for the recovery of a dog, either of high or low degree, if he happens to be the valued pet of a handsome girl.



Billy Spot and his mistress. Is there any doctor, old or young, who would not do his best for clients like these?

"Billy Spot" is six months old, and he has spots fore and aft. Hence, his name—spots back of his ears and on the end of his tail. He was taking an outing with his mistress one day, when a wheel of an automobile, which was running at low speed, passed over him. I was called to see his dogship immediately, when I learned the facts from his young mistress between her sobs and tears.

After a very careful examination (more careful on account of the lady rather than the

dog), I found that no bones were broken. (This being only my second canine patient, I proceeded slowly and carefully with said examination.) Billy seemed to be in great pain. He was lying on one side, with all four legs extended, and there were little twitches of the muscles, as if he was about to have a convulsion. He was so weak that collapse was threatened. Respiration was difficult, and exceedingly rapid. Upon examination with the stethoscope, I found occlusion of air-cells and moist râles; consequently, I diagnosed traumatic hemorrhage of the lungs. One of the family then ventured the information that the dog had already vomited blood.

I feared that "Spotty" would die before the medicine which I had sent for from the drugstore two blocks away would arrive. However, a second, a hurry, call soon brought the medicine, composed as follows

Prescription No. 1:

Emetine granules, gr. 1-64 each . . . No. 48
Water, enough to make ozs. 2

Prescription No. 2:

Oil of turpentine ozs. 1 1-2
Camphorated oil, enough to make ozs. 2

I gave a hypodermic-syringeful of the emetine solution immediately, injecting it into both shoulders and hindquarters, then rubbed the liniment all over the thorax. To my great surprise, in a few minutes "Billy Spot" "sat up and took notice," seeming much easier and brighter.

Fearing that the improvement would not last, my prognosis was a possibly fatal termination by morning. However, the next day I was delighted to learn that my four-legged patient was still alive, much improved, and was breathing more slowly and with greater ease. Examination with the stethoscope indicated that the lungs were clearing and that not only had hemorrhage been arrested, but resolution and absorption were almost complete.

I repeated the hypodermic injection several times, in order to "clinch" this improvement. There occurred no more hemorrhage, and "Billy Spot" made a slow and uneventful recovery, although for three or four days there was so much soreness in the chest that he could not lie down. Although he was a dog, he had to take his sleep in cat-naps.

I believe that the emetine caused an immediate arrest of the pulmonary hemorrhage, while the absorption and clearing up of the lungs was greatly aided by the counterirritant

action of the liniment. What say the members of the "family"?

C. W. HUNT.

Brevard, N. C.

EMETINE IN HEMORRHAGE—ANOTHER REPORT

Mrs. M., age 35, suffered from menorrhagia for years, flowing excessively for ten to twelve days; then there was more or less dribbling of blood constantly until the next period. I tried emetine in this case, giving 1-2 grain of emetine hydrochloride subcutaneously upon the fourth day of the flow. The bleeding was arrested in less than three hours, although the oozing of blood (just enough to cause annoyance) continued until the next regular period. This 1-2-grain injection saved this woman from five to seven days of excessive menstrual hemorrhage and all the depressing conditions accompanying.

Examination of uterine scrapings showed this patient to be suffering from adenomatous degeneration of the lining membrane of the uterus. This condition will necessitate surgical intervention. Nevertheless, emetine caused an arrest of the symptoms, in spite of the pathological condition present.

I have used the emetine injection in this woman twice, with prompt and satisfactory results in each instance.

Another patient, Mr. W., submitted to a submucous resection of the nasal septum. Upon removal of the packing, eighteen hours after the operation, hemorrhage occurred, and the loss of blood was profuse. An injection of 1-2 grain of emetine hydrochloride stopped the bleeding within a few minutes. Half an hour later, the hemorrhage was completely arrested.

These cases are few in number, but when added to every other report, they help to swell the total to a point upon which we can safely rely. Certainly I would not be without emetine hydrochloride in my emergency satchel after these experiences.

W. H. SNYDER.

Royal Oak, Mich.

HEMOPTYSIS. URTICARIA

Hemorrhage From the Lungs.—December 2 last, I was called to see a sick man, a large-framed, robust blacksmith, who was a heavy drinker and was just sobering up from a spree. I was told that he was having a hemorrhage. I found him on a sofa with blood spattered

over his clothing, on his lips and face, and nearly two quarts of it caught in a washbowl. I immediately gave three 1-250-grain granules of atropine sulphate (by mouth), and repeated the dose in ten minutes. The hemorrhage soon was checked. I directed the atropine to be continued every hour and enjoined rest and a light diet, then left.

The following day, I administered an enema, which brought away a large amount of black clots and the dejecta had a very foul odor. The patient recovered after about ten days' treatment. I should have tried emetine, but had none. The atropine did very well.

Urticaria.—In April of this year, I had to treat urticaria in a young married woman, the wheals over her face, body, and limbs being large and the itching intolerable. I tried the usual remedies, with the cleanout and cleanup by means of saline cathartics to a watery stool. Locally, the only thing that would relieve the itching was a solution of phenol, 1-2 dram; alcohol, 8 ounces; water, 8 ounces. This gave some relief; still, she continued to suffer.

Not knowing what else to do, I prescribed emetine hydrochloride, 1-64-grain granules, one every half hour. The following day, she went about her work, the itching ceased, and the wheals disappeared. They have not reappeared to date. I do not know whether the emetine did the work or whether the trouble had run its course, and would have occurred, anyway.

I should like to have your opinion and also to hear the experience of readers.

W. C. DAVIDSON.

Sedgwick, Colo.

[Whether or not the emetine cured the urticaria we cannot say; but this favorable report should encourage others to try the drug in similar cases.—ED.]

POSTGRADUATE WORK IN CHICAGO

In the editorial department, this month, we have called attention to the advantages of American postgraduate medical schools, and have advised physicians who would ordinarily make a trip abroad for study to patronize our own institutions.

In this number of CLINICAL MEDICINE you will find the advertisement of the Illinois Postgraduate Medical School. This school presents an especially attractive program, as you will see by consulting the advertise-

ment on page 45. If you are thinking of coming to Chicago this summer for work of this kind, you will make no mistake in writing for information to Doctor Clark, secretary of this institution. In doing so, be sure to mention CLINICAL MEDICINE.

Another school which is doing good work in Chicago is the Postgraduate Medical School and Hospital, which now combines the resources of the old institution of the same name, with the old Policlinic.

Whichever school you decide to attend, we extend a special invitation for you to come out and see us when you are in Chicago. And, by the way, whenever you are in Chicago, or have a few hours to stop off when coming through, remember that we are anxious to make your acquaintance and have many things of interest to show you.

HOW ABOUT CHLORAL IN VARIOUS DISEASES?

Generally speaking, I believe that chloral hydrate will be found an excellent substitute for the opiates now in general use. (Chloral is not barred by the Antinarcotic Law). For irritative lesions, chloral is far superior to opium. For the irritative cough of grip; for the irritative diarrhea of "summer complaint," in any condition where nervous irritation is the accompaniment of disease, chloral will bring the desired results.

Possibly you recollect my old prescription for cough, namely: Chloral hydrate, drs. 2; specific medicine gelsemium, drs. 2; syrup of wild cherry enough to make ozs. 3. Label: One-half to one teaspoonful, in water, every three hours. This is reliable.

Another prescription, one for painful lesions of the bowels, accompanied by diarrhea, is this one: Tincture of cinnamon, drs. 2; tincture of iodine, drs. 2; chloral hydrate, dr. 1; simple elixir enough to make ozs. 3. Label: One-half to one teaspoonful, in water, as needed to check the bowels. This also is reliable.

Down here, in the swamps, we give quinine in nearly all lesions.

W. P. HOWLE.

Charleston, Mo.

[Many doctors will be hunting for substitutes for the ordinary narcotics, now that the Harrison law begins to pinch. It is a good plan to do so, although when morphine (or opium) is *really* needed it should be employed, just as it always has been. Whether

chloral is a safe substitute we leave for our readers to decide. We confess that we do not greatly favor it, although it undoubtedly is a useful drug in many conditions.—Ed.]

THE INJECTION TREATMENT OF HEMORRHOIDS

Since THE AMERICAN JOURNAL OF CLINICAL MEDICINE has had the courage to bring up the treatment of hemorrhoids by means of injections, I feel constrained to add my testimony to the value of this method. I have been using it during the past thirty-five years or longer, and with practically uniformly good results. In fact, it has been the most satisfactory and successful thing I have done in my practice. It is so simple and so easily done, that the average practitioner actually seems to have a foolish prejudice against it.

The fluid I have been using all these years has this composition: phenol, 1 part; glycerin, 3 parts; distilled water, 4 parts. Mix the phenol and glycerin, add the water, and filter.

Many cases of piles can be successfully injected with an ordinary hypodermic syringe alone; nevertheless, it is much better to have a Pratt's rectal speculum (medium size) and also a 2-inch extension on your hypodermic syringe.

The patient being in position and making an effort at straining, the operator can draw the pile down into view, whereupon he injects from 10 to 20 drops of the fluid superficially into the tissues, and as high up in the tumor as he well can. The needle should be allowed to remain inserted a minute or two, so as to avoid the fluid's escaping through the puncture.

The tumor will be seen to become infiltrated and mottled in the field of the insertion almost immediately; and this is evidence that the treatment will be effectual.

The pile-tissue should be returned within the sphincter soon after the injection, and kept there. By doing this, much of the unpleasant after-effects of the treatment will be obviated.

Tumors and parts that cannot be brought out as above described must be exposed by using the speculum, and treated through that; and this necessitates the extension on the syringe.

If a large amount of pile-tissue is to be treated, not more than three or four insertions should be made at one sitting. Then eight or ten days are allowed for the resulting in-

flammation and tumefaction to subside before making another injection.

Only internal piles or those that can be replaced should be treated by this method; not external ones.

Try this method, brother, and you will be astonished as well as delighted at the result.

W. W. HOUSER.

Lincoln, Ill.

A SMALL BABY: WHO CAN MATCH IT?

I am sending you the photograph of a child 10 months old that weighs only 9 pounds. At birth, its weight was 2 pounds, clothes included; at three weeks of age, it became very much jaundiced and had a severe attack of bronchitis, the temperature running as high as 104° F.

How this baby has lived at all and thrived to the extent it has, is a mystery to me. The first four months of its life it had the expression of extreme senility, but now, as you can tell by picture, it has somewhat of a youthful and healthy appearance.

This baby was premature by two and a half or three months. The mother is 38 years old and has eight other children.



A Small Baby—Ten Months Old.

Who else has had as small an infant and still living?

Sabinal, Tex.

I. N. CAMPBELL.

[Who can match this—or beat it? Let those who want to “break the record” report

their cases and submit their evidence. We also show a picture of Doctor Campbell's beautiful home. Formerly we printed pictures of many doctors' homes. Recently we



Doctor Campbell's Home.

have gotten out of the habit of doing this. Do you want them?—ED.]

VACATIONS AGAIN

Next month is the time to discuss vacations; so, if any reader of CLINICAL MEDICINE has any suggestions to make, or any help to offer for those of us who want to get away from the hurly-burly out into “God's own country,” now is the time to speak. Come on, everybody—let's go fishing!

FROM THE FIRING-LINE

My experience as medical director on the firing-line has made me very familiar with the battle line between the allies and Germans for nearly 100 miles. My duties require a constant movement, regulating the field hospital, the ambulance work, arranging the Red Cross work, and so on.

A dispatch called me to the general headquarters, with an intimation that I should be retained there for some time. On my arrival, I found that my duties were, to determine the questions of how to get the wounded back in the most expeditious way; also how to mobilize the ambulance service, so that it could be concentrated at any one point to meet any emergency.

For many weeks, the charges and counter-charges along the firing-line were of a desultory character, sometimes very intense, with a heavy mortality and a large number of wounded. At others, less so.

The cloudy weather made it impossible for the airmen to warn us of the concentration of

troops at different points, and the only intimation of a charge would be a heavy artillery fire at a given point. This might be many miles away from a hospital, and after the charge it would require considerable time before the wounded could be gathered up and disposed of.

At the headquarters, the entire line was mapped out on paper, showing every trench, hill, valley, and farmhouse back for a mile or two, and as much of the contour and appearance of the country on the other side of the line as could be found. Every battalion of troops was located, both in the trenches and in the rear, and any man in active service could be found, if with his regiment. The hospital in the rear was equally thoroughly mapped out. The roads, streams, and bridges were all jotted down.

My duty was, to determine where the field hospital could be made most available, and the roads to the rear, by motors, the most practical. The railroad lines further back, and the best methods of reaching them by motors and ambulances, had to be noted. Many of the field hospitals were being changed, for reasons which the officer in charge determined. Many telephones ran to all these places, and whenever a charge across the lines was reported the question was as to the proximity of the hospital and the ambulances and motors, and how to get the ambulance-corps, stretcher-bearers, and dressers to that point in sufficient numbers to meet the emergencies. The charges were made at night, and often at two or three places along the line; and frequently countercharges followed, thus increasing the wounded and dead and suddenly taxing the hospital to meet these emergencies.

In a rough board structure at the general headquarters, I noted from the 'phone where the fighting was going on, and marked it with pegs; then noted the proximity of the field hospital, and estimated whether it should be moved up nearer or remain where it was. Also, how near the ambulance corps could approach the firing-line, to gather up the wounded with safety, and the roads they would have to take to do this; and, supposing the charge was successful in driving the line back, what way could the hospital and motors retreat and escape capture. A corps of signal-officers on the ground or in the neighborhood 'phoned constantly to headquarters every change in the troops, and the medical director at that point did the same thing, and asked for instructions, stating what in his opinion would be the most practical to do.

All this entailed on the medical director at the headquarters a constant study of what would best be done under the circumstances. Thus, at one time a countercharge drove the Germans back three miles or more and a new set of trenches was established. It was absolutely certain that an attempt would be made to retake this, and, while the wounded were very numerous and the ambulance service was a good way off, it was a question where to put the receiving hospital, where the wounded could be taken with the least effort and carried to the rear. In the military department, realizing that an effort would be made here to retake the trenches, troops were hurried to this point to prevent a countercharge.

As this was a very important place strategically, the commanding general went over to the grounds to determine the best disposition of the troops. I went back to prepare for the worst and to put the hospital department in a condition to meet any possible emergency. So, arrangements were made with the greatest of care. However, for some reason the Germans did not charge on this line, although they kept up an incessant firing; but, instead, they suddenly attacked, several miles away in another direction, hurled a mass of men onto a thin line and drove it back and took a great many prisoners. This called for another adjustment, a study of the roads, the woods, and houses in the neighborhood, and how the wounded could be taken back with the least annoyance to the active forces.

Sitting in the office at the headquarters, watching the board with its pins before me, noting the disposition of the troops and the conditions behind it, one is impressed with the value of organization and the perfection of details that can be arranged miles and miles away with far more accuracy than if on the ground.

Thus, one afternoon, a certain hospital seemed to be in a dangerous position, and an order for its removal a mile or more in another direction was carried out in the course of two or three hours. The hospital authorities had no knowledge of the reasons for this, but we, looking higher up, saw the danger of their position and the possibility of its being shelled within a short time. In this we were correct. A short distance from the hospital, a concealed battery had been sending some very large shells that evidently were very destructive to the lines of the enemy, and it was certain that they would get a range of this battery and apply it before long, and

that would make the hospital a very dangerous point.

The medical side of the war is, to get the wounded back as quickly as possible. Then, if the dead can be buried without much danger, this is also important. On a line so extended and covering such a variety of hills and valleys, there are conditions which are constantly changing and requiring new adjustment; and this means business skill and quick judgment, not only in the medical department, but at headquarters. While the artillery fire is more or less incessant along the whole line, the tactics of the Germans are, to mass troops at certain points and break over the lines. Then, if they succeed in holding the ground they have taken, this is called an advance. If the allies throw masses of troops on the flank, they either have to retire or be captured, and this causes a new condition.

This is the kind of fighting that has been going on for the last two months, but probably will change when the weather gets warmer. The medical department is particularly concerned in getting the wounded off the field, as the weather is so very inclement and uncertain that serious complications from cold and exposure may follow. A man with a broken leg or a lacerated body needs help very quickly in a cold, drizzling rain, storm, snow or a biting wind, with the temperature in the neighborhood of zero. Great deeds of heroism often are performed in rescuing these poor fellows who are exposed to the constant fire of sharpshooters.

In several instances, hospital-bearers and Red Cross men, and even surgeons, have been shot in their efforts to rescue some poor fellow whose groans for help roused the sympathies of everyone who heard them. In the future, many a deed of heroism and incidents occurring in these lines will be related, that will startle readers and sound like fiction.

As I have mentioned in my previous letters, the organization and perfection of the medical department is growing steadily. The poor, weak men are being dropped and the strong, robust, self-reliant physicians take their places and become trained to their work. When the present lines are changed and the armies move on, as they certainly will, into the enemy's country, there will be perfection of detail and medical efficiency that will startle the world.

The French medical departments undoubtedly are equally well organized. The American Red Cross service has been a splendid object lesson in many ways and has

given a certain practical character to work on the front lines that did not exist before. The English service has been routine-like and founded on experiences in other wars, but the last few months have broken up the oldtime prestige and theories. An entirely different conception of the duties and methods of executing them has come into use since this war began.

Now, after a battle-charge, a surgeon and trained attendants rush over to the field, examine the wounded who are able to walk as they come back, doing the first-aid required and directing them where to reach the hospitals, and those disabled are put in motor ambulances and hurried back with the greatest speed. If the hospital is within a mile or two, the motors very soon carry back all the wounded, and are ready to take them to a receiving hospital farther inland. The wounded are usually fed, their wounds dressed, then put in the same motors and hurried back several miles to the general hospital; and here they are sorted and if possible put on the trains and sent far to the rear. At some points, 500 or 600 wounded have been taken off the field within two or three hours.

Sometimes the wounds are very severe, and, again, they are insignificant and require minimum attention. Sometimes men are carried off the field, and the surgeon is not able to make any diagnosis, not finding any wounds. At the receiving hospital, a more careful examination may fail to discover the trouble. Then they are taken farther inland to the general hospital, and here they are observed a sufficient time before the real lesions are discovered.

This is the first time in the history of wars that horseless wagons have been used to remove the wounded, and this is the first time that large bodies of troops of soldiers have been transported by great motor trucks. On one occasion, over 1000 soldiers were changed to a point ten miles away, within an hour. Automobiles and trucks were concentrated at a certain point, and, the roads being good, the change was made with startling rapidity. Motors for hospital service are used in every possible way, and their value is being recognized more and more. If the roads are good and the country is level, vast bodies of men can be shifted from place to place without the strain and fatigue of marching and can enter an engagement fresh and vigorous. Motor trucks drawing ammunition, guns, and food of all kind are in constant evidence, and light motors, carrying officers here and there, show

that the war is conducted on a scale different from any ever before waged.

The telephonic service has been equally developed. Men in the trenches can talk to those in the rear and be warned that a force is approaching them, and men in the rear know where the fighting is most severe and where the shells have done the most damage. This constant communication makes the war a business of exactness never seen before.

"BRITON."

TYPHOID FEVER: SIXTY YEARS OF EXPERIENCE

After reading the May number of *CLINICAL MEDICINE*, I have wondered how you could have got into it so much of illustrative medication, and now, having been in active practice for nearly sixty years, I feel tempted to comment briefly upon Doctor Lawrence's article on typhoid fever, published in that issue. I have a careful record of 341 cases of this disease treated here during the last thirty-one years.

Doctor Lawrence insists upon free purgation. May I report two cases, to show that this is not always essential? In my early practice, a young lady whom I was attending was almost prostrated from frequent discharges from the bowels. At last I got them under control, and then I kept the bowels quiet for sixteen days. The young woman said to her mother: "Doctor Sholl has locked up my bowels and thrown away the key."

She went on to complete recovery.

In another case, following copious hemorrhage, I kept the bowels quiet for sixteen days, and in still another for twenty-four days. At the end of the period mentioned, in both cases, the bowels moved normally and the patients went on to recovery.

In my last twenty-nine cases, I gave 1-12 of a grain of mercury bichloride every two hours. All recovered. If you add to this treatment genuine specific tincture of echinacea, 20 drops, you certainly will abbreviate the disease.

E. H. SHOLL.

Birmingham, Ala.

BELLADONNA POISONING FROM A POROUS PLASTER

Having read so many short and pointed articles from the "family," giving the experiences of many physicians, I am encouraged to report one case, which interested me

greatly. I was called early one morning, at about three o'clock, to see an elderly lady of one of the best families in the city. When I arrived at the home, I was told by a lady member of the family that the patient retired at the usual bedtime, well and hearty. About midnight, members of the family were awakened by some one walking about the house, from room to room, in an aimless manner.

Upon examination the patient appeared to be under the influence of some drug. She could not talk intelligently, and would feel around the walls of the house as if she were hunting some object. I examined the pupils and found them widely dilated; the skin was red, the mouth dry. I made inquiry about any possible mistake in taking a dose of medicine. I was assured that there was no medicine in the house that she could have taken by mistake. A young lady sleeping in the same bed told me that before the patient retired she had rubbed her back vigorously with turpentine and then applied an Allcock's belladonna plaster for a pain in the region of the kidneys. When I was told this, I made a diagnosis of belladonna poisoning. In the meantime I had given the patient a hypodermatic injection of morphine and strychnine, which was probably the best thing I could have done for my patient. I had never used morphine for belladonna poisoning before, but in this case it worked fine.

I removed the plaster, and in a few hours my patient was well again. I neglected to say that the patient exhibited every symptom of belladonna poisoning. She would not answer any questions.

I would like to hear from other members of the "family" with reference to this case; also, what the editor thinks of the case. I never heard before of one of these plasters causing belladonna poisoning. My theory in the case is that the brisk rubbing of the skin with the turpentine where the plaster was to be placed caused an acute hyperemia involving the skin and underlying structures, causing a quick action from the belladonna in the plaster, setting up belladonna poisoning. Am I right in this theory? Give me your ideas. These are mine; I want yours.

JOSEPH W. GREGORY.

Cisco, Tex.

[I believe Doctor Gregory was right in his diagnosis. The turpentine rub would undoubtedly greatly increase absorption from the area under the plaster. I do not know

how much belladonna the Allcock plaster contains, but the official belladonna plaster (emplastrum belladonnæ) embodies 30 percent of the extract of the drug in the adhesive mixture, and 10 Grams of this is spread upon each piece of cloth. In other words, there are about 45 grains of belladonna extract to each plaster. This, if of good quality, would contain about 1.5 grain of atropine—enough to produce decided symptoms of poisoning should any considerable portion be absorbed.

Morphine is, of course, the physiological antidote for atropine during the excitement stage, but it must be used with caution if there is depression. During this stage caffeine may be employed as a stimulant. Inhalations of chloroform or ether are indicated when convulsions occur.

Poisoning from belladonna plasters must be very rare. I do not recall another case, but possibly some of our readers have had experiences similar to that of Doctor Gregory. If so, we shall be glad to hear from them.—Ed.]

ARSENO-FERRATOSE: ITS EFFICACY IN DISEASES OF THE THYROID GLAND*

In March, 1913, I reported in THE AMERICAN JOURNAL OF CLINICAL MEDICINE my experience with arseno-ferratose in the treatment of two remarkable cases of Graves's disease. Since that time, I have prescribed this preparation in a case of myxedema, with much advantage, and know of its pronounced good effects in combating the symptoms of a mild form of cretinism in a young girl. Curious to relate, these cases all occurred in a village of northern New York, where I pass my summers. I know of another instance of Graves's disease affecting a lady who resides in the South during the winter, but passes her summers in the same village. In this case, Beebe's serum is being used, as I understand, and with fairly good results, although somewhat variable. In the case of myxedema, large doses of thyroid extract were given, and I believe with injurious effect, because of a mistaken diagnosis at its inception. The young girl one year ago was backward physically and her mental development was very limited. Since that time, she has improved in every way, in a notable degree.

These cases, four in number, in which arseno-ferratose has been most useful, can scarcely be mere coincidences, and I desire

very much to have other practitioners give it a thorough trial in their cases of impaired function of the thyroid gland, whether the disturbance consists in increase, lessening or change of secretion. This combination cannot be injurious, whereas thyroid extract surely is when given in inappropriately selected cases or in too large or too frequent doses, or too long continued.

Beebe's serum, while it can justly claim in its behalf much utility, not infrequently has failed to give good results, as has been credibly reported. It might be, of course, that another combination of arsenic and iron would prove equally beneficial, but that I do not know, nor am I inclined to the belief. My reason for the conviction is, that it comes from a long experience, in which I have seen many agents tried, but none with like success as that which I have ascribed to arseno-ferratose. Messrs. Merck & Co. make the following statement regarding arseno-ferratose: "By the introduction of arsenic (in organic combination) into the molecule of ferratin (an iron proteid compound originally found in pig's liver), arseno-ferratin is obtained, and this in palatable solution is known as arseno-ferratose. A teaspoonful of it contains 1 1/4 grains of iron and 1-400 grain of arsenic. The dose is from 1 to 2 teaspoonfuls."

I am inclined to believe, in view of my observations, that, whatever be the precise underlying cause of the thyroid affections referred to, they are all very favorably affected by this combination of arsenic and iron.

It is not uncommon in the practice of medicine to assert the efficacy of certain mixtures, when the same idea is not shared by others; although, really, from their known component parts we should obtain similar results, positive or negative. Nevertheless, we do not.

There have been many theories, as we know, to explain thyroid excess, thyroid deficiency or impairment of function and its consequences. The water, the soil, the air, all have been invoked, with only questionable determination as to the importance of each one by itself. When we call upon heredity to explain, it may do so in one case, but, yet, fail us in another; as, indeed, it may fail in many where we do not differentiate between sporadic disease and when the malady is endemic.

The chemical analysis of normal thyroid secretion, as we know, shows the presence of a certain amount of arsenic; and, as a matter of fact, in most thyroidic diseases the patient

*Read before The Practitioners' Society of New York, October 9, 1914.

shows some anemia. It is possible, therefore, that in all cases where this gland is morbidly affected, it requires just what arseno-ferrate supplies, to bring back its healthy activity.

For myxedema, Ewald (Osler's "System of Medicine," vol. vi, p. 462) recommends arsenic in the form of Fowler's solution, 3 drops a day, as a preventive of symptoms of thyroidism. According to H. E. Waller ("Theory and Practice of Thyroid Therapy," p. 119), arsenic seems to be a sort of guardian of the thyroid gland. Is this, he inquires, by neutralizing thyroid secretion, or does it improve the general thyroid tone, by giving general exercise? In any event, arsenic has long been a standard drug in the treatment of Graves's disease.

BEVERLEY ROBINSON.

New York City.

[I wonder how iron arsenate or arsenic iodide would act in these cases. Can anyone report experience?—Ed.]

TREATMENT OF MALARIA WITHOUT QUININE

When I am called to treat an individual suffering from malarial fever, whose skin and eyes are yellow, spleen enlarged and temperature high, my first effort is, to stimulate all the eliminative organs. To do this, I give calomel in large doses, often in association with podophyllin, aloin, and bicarbonate of sodium. If the kidneys are inactive, I prescribe buchu and digitalis. Acetanilid in some form is prescribed for reducing the temperature.

During the last seventeen years, I have treated successfully thousands of cases of malaria without giving a grain of quinine; and this includes the straight intermittent and remittent fevers. My patients usually recover within from three to six days after treatment is begun. I induce profuse sweating by the use of Dover's powder. Thorough elimination of this character is the sheet-anchor of my treatment.

If I am called to a case of chronic malaria, the patient having an enlarged spleen and liver and is decidedly jaundiced, I give an alterative containing potassium iodide, nuxvomica, taraxacum, cinchona, sarsaparilla, and cascara. It is surprising how much benefit will follow the use of this combination for about four weeks. Sometimes, in severe cases, with periodical recurrences of chills and

fever, I give, in connection with this form of medication, quinine in fairly large doses.

I have been in practice for twenty years, and I used to give a good deal of quinine, often in 15-grain doses, but the patient, when he became better, would be exceedingly nervous and more or less deaf. With the eliminative treatment which I now employ, I get equally good results, without the characteristic quinine byeffects.

I treat a great deal of malarial fever in this vicinity, in fact, I have had as high as 200 patients down, in bed, with intermittent and remittent fevers, and without losing a single one; provided there were no complications.

I thoroughly believe that best results can be obtained by opening up the sewers of the body and stimulating glandular activity. It is for this reason that I take the liberty of bringing this method of treatment to the attention of the medical profession. I shall be glad to hear from others.

F. W. SPEIDEL.

Senath, Mo.

[Doctor Speidel evidently believes in the "clean out, clean up, and keep clean" methods of treatment—as we do. His method of going about it is somewhat different from ours, but the principles involved are the same. In connection with his article be sure to read the contributions of Doctor Philp and Doctor Nourse in this issue.—Ed.]

NARCOTIC LEGISLATION. KEEPING RECORDS

I have read with interest your editorial on "Narcotic Legislation" in *CLINICAL MEDICINE*, in which you remark: "We thought we understood the law perfectly. Now, it seems, we do not." I reckon that is the case with about ninety-nine percent of physicians throughout the country. I am free to confess that I do not understand it.

It reminds me of an incident that occurred in my town several years ago. One of my neighbors had purchased an old colonial mansion and had employed a carpenter, who had the reputation of possessing considerable architectural talent, to make some alterations in the rooms. The carpenter, after looking over the premises, suggested several alterations in the interior of the house.

The owner did not understand some of the changes that were proposed, and the carpenter proceeded to illustrate by drawing the designs on the floor. After having covered the

floor with chalk marks and diagrams he asked the proprietor if he understood them. He replied: "Well, I don't know as I do, exactly."

The carpenter pondered a few moments and then exclaimed: "Well, I'll be d—d if I do."

That's my feeling regarding this narcotic law.

GEO. D. STANTON.

Stonington, Conn.

[It will be some time before every doctor *does* understand the law, but we must all keep on trying, for it is sure to be enforced. As we have said editorially, elsewhere, *keep the records required by the law*. To help you, we are supplying a fine Narcotic Record Book for only 25 cents. It is cloth-bound, pocket-size, ruled in red, and explains the details of the law in a carefully prepared chapter on that subject. Same book in flexible leather binding for 75 cents.—Ed.]

PATIENTS THAT CANNOT TALK AND THOSE WHO CAN

Physicians sometimes ask how accurately veterinarians can diagnose diseases in the lower animals unable to express themselves in articulate language, as compared with the average diagnosis in the human subject.

While the lack of speech is a disadvantage in some ways, in another it is a decided advantage, for our animal patients never lie to us, or mislead by their own erroneous diagnoses. Many times, when studying a patient, I have wished that the animal had the power to *answer a few questions only*. However, if this meant pouring forth a stream of garrulous misinformation regarding his condition, I should say, "Oh, Lord, let him stay dumb."

In order to attain a satisfactory degree of accuracy in diagnosing diseases of animals it is essential that the veterinarian be a close observer, and thoroughly familiar with animal functions as exhibited both in health and disease. It is interesting to compare the tale told by the owner of the horse with the truth as revealed to a close, sympathetic observer by the animal itself. If the human patient paints such a delusive picture to the physician in portraying his own condition as he does when he describes the condition of his sick horse to the veterinarian, the physician who depended upon it to make a diagnosis would be sadly disappointed in getting results.

I think that the average educated veterinarian makes a more extensive physical examination of the patient than does the average human physician, for the veterinarian must depend very largely upon the information secured in this way. In making such an examination the veterinarian is not seriously hampered by objections on the part of a patient. A thorough physical examination is invaluable and should always be made in veterinary practice. I am not certain it would not eliminate some errors in diagnosing by physicians. The following incident will illustrate:

The writer was once making a professional call in the country, where he found his client in bed, suffering severely from an alleged "bladder trouble." This man said he had suffered at times for years; that frequently there was a red sediment in the urine, and various other symptoms were recounted. The man's wife was applying hot cloths at the time, so an offer of assistance was accepted. On going over the case as if the patient were a horse, to *see and feel* what the trouble was, an inguinal hernia was found that appeared to be the cause of the trouble. This possibility the patient denied, because "he had been ruptured ever since the war." He knew it was a bladder trouble because half a dozen doctors had told him so. However, the man was placed in a proper position, the hernia was reduced, and the suffering disappeared immediately. A truss, applied soon after, effectively prevented a return of the "bladder trouble."

While in some respects the work of the veterinarian presents disagreeable features, there are some redeeming factors. The long train of diseases due to stimulants, narcotics, and other excesses associated with "civilized man," are wanting, as are those extensive mental vagaries, disorders and desires to deceive, even the physician, that seem to be associated with man's so-called superior mentality.

N. S. MAYO, D. V. S.

Chicago, Ill.

"THE DISPENSING-DOCTOR PROBLEM AND ITS SOLUTION"

The article which follows is reprinted from the *N. A. R. D. Journal*, the official organ of the National Association of Retail Druggists. It appeared in that journal on April 22. We believe that it contains an accurate statement of the pharmacists' viewpoint, as well as a

suggestion regarding the legislative program of the N. A. R. D.

The most serious reason given by the rank and file of physicians for the dispensing of medicines by themselves is, that substitution is so generally practiced by pharmacists that physicians do not get what they order. This bad opinion of the pharmacist is systematically nursed by the salesmen of some manufacturers, and has become an effective argument, bolstered up, as it usually is, by the invention and narration of incredible stories of malfeasance on the part of the druggist.

While it must be admitted that there are a few persons holding the title of registered pharmacist who, for a small pecuniary gain, will sacrifice reputation and honor and soil the name of a noble profession, this number is a comparatively small one, and these black sheep are little respected. It is not reasonable to assume that any honorable physician would believe or conscientiously repeat the sweeping charge that almost all pharmacists substitute.

Pharmacists should take heed, either as individuals or through their associations, of the fact that the dispensing-doctor problem is calling for a solution. The demand for a reform is more pressing than appears on the surface. Formerly it was customary to berate the dispensing doctor for whatever dispensing he did, and on account of whatever competition he was responsible for, and to lay the blame solely at his door.

It has been found lately that the dispensing doctor is not nearly so much to blame as is the salesman for the manufacturer or the physicians' supply house, who often uses the most deceitful methods to sell goods, and *inferior* goods at that; and, to one who knows the frailty of the doctor and the ease with which he is tempted by plausible stories, it is little wonder that many physicians fall for the story of substitution and, in consequence, embark on the sea of dispensing.

This phase of the matter offers a means to the solution of this vexed question, and it behooves pharmacists to work along lines that will tend to overcome this degradation of being called a substitutors, when the charge is based, as it usually is, on absolute falsehood. It may be well to engage in such a manner of reform before conditions become so intolerable that relief *must* be obtained through legislation. The latter way is sure to come unless pharmacists act, but with it will come a regular storm of condemnation that bodes no good for the profession of pharmacy, although it may prohibit the dispensing of medicines by physicians who are not registered as pharmacists.

Charges of substitution should not be considered by *any* physician, unless accompanied by proof, in specified cases, which should be reported to the board of pharmacy, and, if such proof can, and will, be brought by the salesman, he will deserve thanks for ridding pharmacy of an unworthy licentiate. It may be true, where there is smoke there must be some fire; but it is equally true that every case has two sides; and seldom, one must admit, has the dispensing doctor heard any but the salesman's side.

If it is admitted that human frailty will occasionally submit to the temptation of substitution for the sake of pecuniary gain, it becomes decidedly a pertinent question to ask why it is that only the retail druggist should yield thereto, and the manufacturer be exempt. Surely, the incentive must be far greater to the manufacturer, who has hundreds

or thousands of dollars to gain, than to the retailer, who at best can gain only a few cents.

The representations that are made respecting many of the goods offered to the physician are, by no means, in accord with the price at which they are offered to him, this being very often below the lowest estimate of cost of material. According to the law of averages, and in harmony with well-defined business principles, it has become an established fact that a high price that is honest is *prima facie* evidence of high quality. It is, therefore, difficult to conceive why drugs and medicines should be exempt from this rule, or why the physician dispensing such inferior goods, having allowed himself to be persuaded that their quality is of the best, does not himself unconsciously become a substitutor.

The common charge—it is really a howl—that druggists wish to monopolize the sale and dispensing of medicines for mercenary reasons, is a charge without foundation, and no one should better recognize this fact than the doctor. A restrictive law is not wanted for the benefit of the pharmacists or in the interests of the pharmacists, but for the protection of the public against fraud and error.

It is a well-known fact that in most European countries dispensing by physicians is restricted by law to cases of emergency, for the protection of the public. By placing the responsibility for the quality of medicines on the pharmacist, a powerful safeguard is erected against substitution and mistakes, and there exists no valid reason why in this country the field of usefulness of the pharmacists should be destroyed, as it surely will be if physicians persist in dispensing their own medicines.

If the least amount of intelligent thought is given to this matter, one cannot help but see that it is to the mutual interest of both professions to eliminate from their ranks the unworthy, whether they be substitutors, nostrum venders, quacks or ignorant pretenders; and further, to cultivate higher education and to meet and help each other in a fraternal spirit, as is intended.

It does seem that it is time that druggists realize the difference between talking and preaching about a thing and the doing of it. There are individuals in both professions who recognize their interdependence and eagerly proclaim their conviction. But mere preaching counts for naught if it is not followed up by practice, and it is here that the pharmacist has been negligent. Everything is in the pharmacists' favor to win this fight, hence, no further time should be lost to bring about this most desirable reform.

Even medical journals of the better class do not side with the dispensing physician, as the following from the *Long Island Medical Journal* attests: "The proportions to which the habit of dispensing tablets and other drugs by physicians has grown in recent years are emphasized by the large number of concerns now in the field that trade almost exclusively with the physician direct. It is probable that the custom is much more extensive in the rural districts, where convenience of dispensing directly to the patient is evident, because of the scarcity of pharmacies, while hospitals and sanitarium also are large purchasers."

"The claim is made that such purchasers are, by no means, exacting in the quality of the goods they buy, being likely to make cheapness the important consideration; and, as is always the case, cheapness is known to mean inferior quality, and competition only tends to increase the evil. Could the druggist feel that the dispensing physician is

always careful to choose none but goods of approved quality, his objections to office dispensing would necessarily be a business consideration only. But, where he knows of undisputed instances in which inferior goods are purchased and dispensed, he rightly feels that such competition is unfair.

"The average practicing physician has no way of determining the quality of the tablet he buys, except the reputation of the manufacturer, and unscrupulous dealers might readily supply him with the poorest of drugs, for the sake of profit.

"It is just here that the dispensing physician is vulnerable, in claiming his right to dispense drugs if he be so disposed. The pharmacist is supposed to be trained in the preparation, identification, and compounding of medicinal substances. The physician, while trained in therapeutics, knows nothing, as a rule, of the commercial side of the pharmacist's training. If he wishes to compete with the pharmacist, he ought, at least, to be assured that his preparations, like Caesar's wife, are above suspicion.

"There is an evident trend toward legislative control in practically every calling, and the profession of medicine, if it has not already done so, must awaken to the evident faults that, unless corrected, will speedily be taken up by the people, who are the court of last resort, and set its house in order before it is too late."

We reprint this editorial, because we want our readers to understand clearly just how the druggists feel and how they intend to act, if they can. We are not particularly inclined to criticize the position which they take. From their point of view, it is, no doubt, a fair one. The purpose is, to increase their volume of business and enlarge their profits.

Needless to say, the statement of the case, as given in this article, is an *ex parte* one. The charge that dispensing doctors are using poorer drugs than are obtained in the drugstores is not supported by evidence. If they are, we want to know it. Certainly no one is more anxious to be put right on that question than the doctors themselves. We should like to see a most careful, searching test made of drugs as they are obtainable from physicians' supply houses, side by side with the same drugs as they are obtainable from the retail druggists. Until some such evidence has been submitted, the argument, that dispensing doctors are using cheap drugs, is not worth a penny. Such an investigation should be made by an absolutely independent, disinterested party. We hope that someone will undertake it. At the same time we are in agreement with the general propositions, that no man should expect to get goods of the best quality at a very low price.

As to substitution by druggists, while it is practiced altogether too often, it is by no means as common as some have charged. The majority of pharmacists are high-minded, honorable business men, undoubtedly.

The principal reasons for dispensing by doctors, the editor of the *N. A. R. D. Journal* does not even touch upon, and these are economic ones. Most physicians dispense for one of two reasons, the first being, because they know that their patients appreciate greatly the enormous saving in money when drugs are supplied by the physician.

The second reason is, that, when a doctor dispenses his own medicine, he can keep the patient under his control and thereby secure better results.

Much more might be said on the subject, but we shall not attempt to plead the case here, either for or against dispensing by the physician. As we have said so many times in these pages, every physician must decide for himself whether he will dispense his own medicines or prescribe them. We believe in leaving the decision absolutely in his hands. He can be trusted to adopt the method which, will secure the best results for his patients.

A few words we do want to add—to express our faith in the general honesty of the members of both the medical and pharmaceutical professions. The aspersions repeatedly cast upon the character and intelligence of dispensing doctors, as well as upon the pharmaceutical concerns which supply them with drugs, we cannot believe to be approved or endorsed by retail druggists generally.

DO YOU WANT CALIFORNIA JELLY?

Another physician—a regular reader of *CLINICAL MEDICINE*—who wants to offer something for exchange is Dr. L. C. Boyd, Sawtelle, California. He offers "My Sisters' Pleasant Surprise" brand of California mountain-fruit blended jellies. The Doctor declares that these jellies have created a real sensation wherever offered, by reason of their superior flavor and fine quality. We can assure you that they are excellent.

The Doctor writes that orders may be sent to him. For \$2.00, eight glasses (half a gallon) of jelly will be sent by express from Los Angeles. Such a shipment weighs about 12 pounds. As a special inducement, the Doctor will gladly tell you (when the jelly is shipped) how he treats acute febrile conditions.

Single 8-ounce glasses of this jelly will be sent by parcel post for 25 cents, plus postage. The weight of such a glass, properly packed, is two pounds.

If you are interested, order at once—certainly before July 1, specifying "berry blend." Other fruit jellies later in season.

Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, A. M., M. D.

AT WHAT hour do you go to bed?
How long do you sleep?

Quantity and quality of sleep make or mar the individual. One may live forty days without partaking of food; one possibly may live eight days without food and water; but, seven days is the limit of existence without sleep. So much for the need of sleep for the sustention of life. Then, how should sleep be taken so as to secure from it the greatest benefit? To know the general laws that govern in this matter—to know when and how to sleep—is distinctly worth while; and this is true even if it may not be within one's power to observe the rules which it is best to follow.

Although nature has indicated unerringly when we should sleep, it is less definite regarding the length of time to be devoted to slumbers. Man is distinctly a daylight-animal—his eyes are not constructed for efficient service in darkness and there is no evidence that they have been otherwise since the race came into being. Even the cave-dwellers, the earliest men of whom we have knowledge, had eyes like ours. Therefore, night is the natural as well as the best time for recuperation by sleep.

But, why should the hours of sleep be confined to a fixed period, why is not one time as good as another for resting the mind and body? The answer is simple. For perfect sleep, that is to say, sleep that will do the most good, two conditions are required: silence and darkness, both as nearly absolute as can be. We cannot command either of these conditions in the daytime. We may secure by artificial means what may seem very nearly perfect silence and darkness, both as nearly absolute as possible, yet, they will not be real. Although we may not conscientiously recognize the fact, our nerve-centers will; and upon the condition of the nerve-centers depends the quality of sleep.

A ray of light falling upon a sleeper's eyelids stimulates activity in the nerve-centers and increases the blood supply of the brain,

which is just what should be avoided; and everyone knows how difficult it frequently is so to darken a room in the daytime that some rays will not reach one's couch. But, if our choice must lie between two evils, then, naturally, relative darkness is better than none.

As of darkness, so may it be said of silence in the daytime—it does not exist. No matter what precautions are taken, the sounds of active life, even in the country, will permeate any refuge as soon as the sun has risen. It is true that we may not notice the sounds, we may think that we do not hear them; still, we do, and they have their effect upon the activity of the nerve-centers in sleep, as do the light-rays. Everybody is familiar with the experiment of closing the ears tightly during what seems a period of absolute stillness and then withdrawing the fingers. There comes a sudden roaring the existence of which had not been conceived while the means of hearing was cut off; however, the roar of life never is absent and has its effect upon the sleeper more or less, although, naturally, far less at night than in the daytime, because then it is enormously diminished. So, it is self-deception for one to say: "Well, even if I do occasionally stay up later than usual, I get the same amount of rest, for I get up later the next day."

But darkness and silence do even more than to promote the sound and healthful quality of sleep; they actually, in a measure, induce it, if there is nothing to excite the mind. Illustrative of this and curiously interesting were some experiments made with a lad, sixteen years of age, who was blind in one eye and deaf in one ear, and who had become anesthetic over the entire body, so that the sensibility of his skin was entirely abolished. It was only necessary to close his healthy eye and to stop up his normal ear, to cause him to fall into a deep sleep within two or three minutes. He was a youth of little intelligence or imagination, and, so, receiving absolutely no impressions from without and having virtually nothing to occupy his mind, his body instantly took the

opportunity for rest. Impervious to outside influences, the boy could not find within himself ideas enough to support consciousness; but, with sight and hearing restored, he was at once again provided with the material necessary for sustaining the mind's activity and wakefulness. However, even with these senses thus suppressed, but with a normally sensitive skin, he would have remained awake. Such is the effect, in relation to sleep, of anything that may reach the cognizance of the nervous centers.

Nature's pulse has its hours for slow and for rapid beating, defined with some exactness, and all breathing creatures must respond to this prototype. Those which rank as exceptions, in any sense, must be specially provided for, from the cat-tribe to the owls. Animals confined in boxes from which all light and sounds are excluded as far as possible have been found, despite such precaution, to lose in weight far more in the daytime than during night. The very pulse of nature seemed, somehow, to be transmitted to them, arousing the tissue-destroying forces to activity during nature's working-hours.

As to when we should go to bed and how long we should stay there, no hard and fast rules can be given; but an ideal practice may be said to be, to go to bed regularly at 10 o'clock in the evening and sleep from seven to eight hours or, maybe, longer, according to age or individual requirements. Of course, a certain scope should be allowed, varying for the winter and the summer months. There are more hours of darkness in the winter, thus considerably reducing our hours of activity; while, furthermore, the altered climatic conditions make greater recuperation necessary, and, although we are not hibernating animals, we do have something of a tendency in that direction.

But, there are other reasons why the hours indicated are the best for taking sleep. The final processes of assimilation take place and the body is nourished most during sleep. This assimilation goes on much better and more rapidly before midnight than afterward. The reason for this is, that there is a more rapid circulation of the blood and this distributes the fresh nutrient pabulum and at the same time carries away the waste products.

Furthermore, oxygen is consumed by the sleeper in greater quantities before than after midnight, and it is this oxygenating element

that is necessary to the nutritive processes. Man's consumption of oxygen during these early night hours is significant and has various bearings. The heart decreases in force of action from midnight until sunrise. It is at this time when nightmares and similar disturbances occur most often, and even death takes place more frequently in the hours just before dawn. Between 12 o'clock and sunrise is, distinctly, not the best time in which to enter upon a hoped-for period of restful and beneficial sleep.

So much for the conditions pertaining to ideal sleep, sleep which, restful and dreamless, is recuperative to the limit of the occasion. Sleep we must have; the brain and much of the body must have rest, otherwise, insanity or death will ensue.

The degree in which sleep is necessary to different individuals may differ, but, the average time required for a renewal of lost material and the elimination of that which is deleterious is from seven to eight hours for those who have reached maturity. There is a good deal of myth about the stories of Napoleon and others who are said to have been sufficiently refreshed and recuperated by the fabled four or five hours of sleep out of the twenty-four. As a rule, the law of compensation in nature applies without favoritism; besides, in any event, exceptions are not to be considered in a question of this kind. It is essential to know when to sleep and how to sleep, in order to make the most of it.

Unfortunately, there frequently is a gulf between our knowledge of how to attain an end and the means for its attainment. We can not all go to bed at 10 o'clock, nor all rise early in the morning. We are subject to modern, and not always the best, conditions, so that, practically, we cannot do as we should. The best that remains for us to do is, to seek to adapt ourselves, as best we can, to circumstances; and, happily, we can do very well in this direction. Those who are compelled or, by the exigencies of our system of living, induced to turn night into day must meet the occasion sensibly. Even the social butterfly need not abandon hope and the night-watchman may live to a green old age. We have conserved our resources when we know just what to do, and ordinarily can so modify conditions that we are not so badly off, after all.

Those inclined or compelled to turn night into day must bear in mind the laws affecting

sleep and try to govern themselves accordingly. They are very simple laws. Their summary is, that sensations arising from influences from the external world must be cut off as far as possible and that there must be an abundance of fresh air.

There are, too, a number of minor rules to be borne in mind. When seeking rest, the mind should be taken from worrying subjects, and a good deal may be accomplished by practice in this direction. Too large a pillow is undesirable; it is easier to get an unimpeded breath when the head is level or nearly level with the backbone. It is better to sleep on one side than on the back, and it is not of great importance on which side. A majority of people sleep on the right side, particularly those having an irritable heart; the sleeper will do what is best for him, naturally. If one be at all hungry, light eating before retiring will do no harm.

There is no doubt that immediately subsequent to the discovery of America tobacco spread all over the world, while its employment by Sir Walter Raleigh made it peculiarly fashionable in the British Isles; still, the Romans and the Irish employed pipes for smoking long ere the Christian era, but what they smoked were dried aromatic leaves—not tobacco! The English (as a carving at Stratford upon Avon demonstrates) had done the same ere the time of Columbus.

Botanic evidence demonstrates that tobacco is an indigenous plant in China and western Asia. Tobacco has been cultivated along the Yang-tse-Kiang from time immemorial. Tobacco from the East, hence, probably encountered tobacco from the West. At first, tobacco, the same as the stronger alcoholics, was regarded as a medicinal preparation and its sale was confined to the apothecary shops. In America, it had a quasi religious function; whence its use in peace-ceremonies.

The typical effects of tobacco occur, as a rule, after long-continued use, sometimes not until after twenty years or more. While many smokers reach old age, many fail to live that long, because of their being smokers. Many symptoms are encountered in inveterate smokers. The skin is the subject of itching and reddening; the nerves of taste are blunted; patches develop in the throat; and loss of appetite, epigastric fulness, pain, vomiting, and disturbance of bowel function

are common. Menstrual disturbance occurs in women. In female cigar-makers, abortion as also pluriparity are frequent. The sexual appetite is impaired, and sometimes sterility and impotence occur. Disturbed heart action, palpitation, rapid and intermittent pulse, precordial anxiety, weakness, faintness and collapse, besides sclerosis of the coronary cardiac arteries, and left ventricular hypertrophy are of common observation. Smoking of cigars and cigarettes produces irritation of the nasal mucous membrane, diminished olfactory sensibility, chronic hyperemia of the epiglottis and larynx, sometimes even of the trachea and bronchi. Bilateral nicotine-amblyopia is common, together with central disturbance of the field of vision, a central horizontal elliptical scotoma for red and green—sometimes also in a lesser degree for blue. Often there is swelling of the auditory tubes and tympanic congestion, with paresis of the auditory nerves, and its consequences—noises in the ear, and so on.

The central nervous functions are affected by tobacco. In high schools, nonsmokers get on better than do the smokers; children from 9 to 15 years of age who smoke show less intelligence, are lazy, and have a craving for strong drink. Adults are liable to cephalic pressure, insomnia, or its converse (sleepiness), depression, apathy, aversion for work, and dizziness. There also may be ataxic symptoms, paretic weakness of sphincters, trembling, and spasms. Nicotine-psychoses rarely affect smokers, occurring more commonly in snuffers and still oftener in chewers. The prodromal stage, which lasts about three months, shows general uneasiness, restlessness, anxiety, sleeplessness, and mental depression of a religious type. After this follow precordial anxiety, and finally the psychoses proper, consisting of three stages, namely:

1. Hallucinations of all senses, suicidal impulses, depression, attacks of fright, with tendency to violent insomnia.

2. Exhilaration, slight maniacal exaltation, agreeable hallucinations; after from two to four weeks, relaxation occurs again, followed by hypomania.

3. The intervals between exaltation and depression diminish, the patient becomes irritable, but otherwise is not alive to his surroundings, perceptions and attention being lessened.

(To be continued)

Among the Books

PARSONS: "ISOLATION HOSPITALS"

Isolation Hospitals. By H. Franklin Parsons, M. D. Cambridge: The University Press. 1914. Price \$3.75.

In these days, every medical man is more or less of a health-officer and interested in the establishment and management of hospitals for infectious diseases; and this book has been written with the special object of furnishing practical help and suggestions to those who are thus interested. The experience gained during a long, official career, as first assistant medical officer of the Local Government Board of London, enables the author to present some useful information and hints not otherwise readily obtainable. On subjects of controversy, such as the utility of hospital isolation in scarlet-fever, the aerial conveyance of infection from smallpox hospitals, and allied phases, the author has given a fair summary of the arguments on both sides, leaving the reader to decide for himself; although he frankly states that, in his opinion, the truth will be found to lie somewhere between the two extreme views or, perhaps, in a different direction altogether.

The book has a peculiar human interest, in the fact that the author died while the proofs were being passed through the press. The editors of the series were fortunate in having secured the services of Dr. R. Bruce Low, also a former member of the Local Government Board, who kindly undertook the correction and completion of the work, which thus may be regarded as Doctor Parsons' last legacy to the profession, with Doctor Low as the able and sympathetic administrator. And it is a worthy legacy, finely crowning the long and useful career of so eminent a man.

BARCLAY: "THE ALIMENTARY TRACT"

The Alimentary Tract: A Radiographic Study. By Alfred E. Barclay, M. A., M. D., B. C. (Cantab.), M. R. C. S., L. R. C. P. New York: The Macmillan Company. 1915. Price \$4.00.

This book has a peculiar human interest, in that it promises to be the last of its kind

that will come out of England for some little time to come. In his preface, the author pathetically says: "War, wholesale slaughter, collapse of credit and God knows what will follow in the wake, are upon us in Europe. Culture, art and learning are overshadowed by a menace such as destroyed the ancient civilizations. In the shadow of this calamity I thought it best to send out this work as it stands—several chapters I had intended to rewrite and enlarge."

The book bears the mark of having been turned out in such chaotic conditions. It is unfinished and rough at the ends. Nevertheless, the substance of the book is excellent. As the author says, there is a real need for a book on the radioscopic examination of the alimentary tract. The work done in this branch of diagnosis in the past few years has been simply wonderful, and it is all embodied in this little book. It represents an earnest attempt to bring the author's own departmental knowledge to the assistance of the clinician.

DAVIS: "OBSTETRICS"

Manual of Obstetrics. By Edward P. Davis, A. M., M. D. Professor of Obstetrics in Jefferson Medical College, Philadelphia. With 171 illustrations. Philadelphia and London: The W. B. Saunders Company. 1914. Price \$2.25.

What a wonderful expansion the subject of obstetrics has undergone in, let us say, the last twenty-five years! From the mere clinical care of the lying-in woman, it has broadened into a science of reproduction, of which the practice of midwifery is a mere incident. No wonder the author of this manual admonishes us that "one who wishes to study the newest gains in obstetrical science must consult the best journals throughout the world."

Of course, Doctor Davis does not attempt to cover the subject with any exhaustiveness or even comprehensiveness in these few hundred duodecimo pages. He aims only to give a concise account of modern obstetrics. Still, the small volume which he offers us is, after all, an epitome of this latter-day, wide-

embracing science of reproduction, quite different from the older manuals of midwifery.

We have one serious criticism to make of the book. We think it is a very grave defect that the author has omitted all mention—or practically so—of the subject of anesthesia in labor, which is demanding such urgent consideration from the obstetricians of the present time. We refer, not to the “whiff of ether” which the author briefly recommends “at the summit of a pain,” but to the genuine, prolonged anesthesia which spares the parturient woman the agony of the entire second stage. If Doctor Davis does not approve of this procedure, he should at least have said so, and given his reasons therefor, so that his readers, who presumably are interested in the matter, might judge for themselves the validity of his objections. In view of the importance of this phase of obstetrics and the urgency with which it is forcing itself upon the medical profession, the physician has a right to expect that the writer of a modern book on obstetrics shall express himself one way or the other, giving reasons for the faith (or lack of faith) that is in him. To ignore the question is inexcusable.

FYFE: “SPECIFIC DIAGNOSIS AND MEDICATION”

Specific Diagnosis and Specific Medication. By John William Fyfe, M. D.: Embodying the Work on the Same Subject by the Late John M. Scudder, M. D. Cincinnati: John K. Scudder, publisher. 1914. Price \$5.00.

To the physician who practices “specific medication,” diagnosis is rather a different matter from that which it is to the ordinary medical man. What is termed specific medication is governed entirely by the symptoms, or, as they are termed, the “disease-expressions.”

So, while the doctor of the specific-medication school is advised to make a diagnosis in accordance with the accepted nosology of the day, “for the benefit of medical science and also for his own personal benefit”—because, as he is warned, “a single mistake in this form of diagnosis may prove extremely detrimental to his reputation”—yet, he is explicitly told that such diagnosis should have but little influence in the treatment of the case. He must, in fact, go to work and make quite another sort of diagnosis, consisting of a process of taking the symptoms, and properly classifying and collating them with a view to the selection of the indicated remedy. The

diagnosis, in fact, as we are plainly told in the introduction, means remedies.

It is impossible for the reviewer either to discuss or to criticize such a position, because it is quite outside his philosophy. One can only say, cryptographically, that for those who like this sort of thing this is the sort of thing they like.

COAKLEY: “NOSE AND THROAT”

A Manual of Diseases of the Nose and Throat. By Cornelius G. Coakley, A. M., M. D. Fifth edition, revised and enlarged. New York and Philadelphia: Lea & Febiger. 1914. Price \$2.75.

Each article in this new edition has been carefully revised and such changes and additions made in the discussion of the diagnosis and treatment as the author has found desirable as the result of his own experience. The purpose of the work, as avowed by the author, is, to provide a compact manual answering the needs both of the student and the practitioner. Special attention, therefore, has been paid to the more practical aspects of the subject; namely, to diagnosis, examination, and treatment.

The text is arranged with a view to giving the reader prime assistance in carrying out these procedures. The author has selected from the numerous medicinal and operative measures those which, in his experience and judgment, are the best, and has given full details of these, for the benefit of those who have not had the advantage of personal clinical instruction. A special chapter on therapeutics also adds considerably to the practical value of the book. Individual references to authorities wisely have been omitted, with a view to keeping down the bulk of the volume.

JACOBY: “CHILD TRAINING”

Child Training as an Exact Science. By George W. Jacoby, M. D. With illustrations. New York and London: The Funk and Wagnalls Company. 1914. Price \$1.50.

The author very pertinently asserts in his preface that the basis of all pedagogic training must be the general assumption that only in a healthy body can there exist a healthy mind, that is to say, one capable of harmonious development. Protection of the body against disease-bearing influences that react upon the psychic functions or the removal of an

existing disorder does not belong to the domain of pedagogic science, but is the part of medicine or hygiene.

It is here that the two sciences have a practical contact. We cannot expect the pedagog to possess sufficient knowledge of physiology, pathology, and hygiene to determine unaided when and where prophylactic or therapeutic measures are required. Still less can we expect him to carry out such measures unaided. On the other hand, the pedagog should have sufficient understanding of these subjects and the physician understand enough of pedagogic problems to enable the two to cooperate in the care of the child.

This book represents a systematic effort to correlate the two sides of the child-problem. It is, in fact, a textbook of this co-operative aspect of the subject of child-training. We recommend it cordially to the earnest study of physicians and of teachers who are interested in this most important topic.

SHEFFIELD: "THE BACKWARD BABY"

The Backward Baby: A Treatise on Idiocy and the Allied Mental Deficiencies in Infancy and Early Childhood. By Herman B. Sheffield, M. D. New York: The Rebus Company. 1914. Price \$1.00.

The contents of this little book constituted an essay for which in 1914 the author was awarded the Alvarenga prize of the College of Physicians of Philadelphia. It presents a practical survey of the pathology, diagnosis, and treatment of mental deficiencies as they occur in children under five years of age. The author states that he was impressed with the fact that monographs and textbooks on the subject were, for the most part, confined to the study of feeble-mindedness in children of school-age and in adults. It seemed to him that with a more thorough knowledge of idiocy and cognate affections in infants, the physician would be in better position to ameliorate, perhaps to cure, these conditions before the underlying lesions should have permanently destroyed the brain and its functions.

Hence, this present attempt to set forth the problems involved from the standpoint of the infant and young child. It is a worthy aim, embodied in a very worthy little book, well deserving of imitation in other quarters. Indeed, we may hope that at some not far distant day the author himself will supplement this modest effort with a larger and more

pretentious treatise upon the subject. There is plenty of room for such a work.

NAGEL: "NERVOUS DISEASES"

Nervous and Mental Diseases: A Manual for Students and Practitioners. With an Appendix on Insomnia. By Joseph Darwin Nagel, M. D. Second edition, thoroughly revised. Philadelphia and New York: Lea & Febiger. 1915. Price \$1.00.

The author of this little manual disclaims any intention of usurping the place occupied by larger and more elaborate textbooks and states that his prime object was, to give the student the essence of the subject in a form that would permit of quick review and enable him to become familiar with those facts necessary to a successful pursuit of the more advanced courses. He has built upon the three-cornered foundation of brevity, clearness, and comprehensiveness.

In this second edition, changes and additions have been made that bring the book into line with the latest advances on the subject; also a selected list of state-board examination questions have been inserted immediately preceding the index. This latter feature demonstrates the real design of the book, namely, to furnish a review of nervous and mental diseases for examination purposes. Considered in this modest light, the book is really a very admirable epitome of the subject and may be highly commended to those whose minds require (as the minds of most of us do at times) a refresher, whether for the purpose of passing an examination or for other ends.

SCHOTT: "BALNEOGYMNASTICS IN HEART DISEASE"

The Balneogymnastic Treatment of Chronic Diseases of the Heart. By Theodor Schott, M. D. With 87 illustrations, including 41 gymnastic poses. Philadelphia: P. Blakiston's Son & Co. 1915. Price \$2.50.

It is, as Doctor Anders says in his introduction to this book, confessedly difficult to carry out the numerous details of this treatment, and it can be employed with the fullest measure of success only by a specialist of widest experience located, as is Professor Schott, at Bad Nauheim. At that peaceful resort the patient also enjoys the advantages of being removed from the cares and responsibilities growing out of practical affairs at home.

However, Professor Schott has described in detail the imitation baths for sufferers who are not in a position to avail themselves of the methods at the Spa, and recommends that one should employ preferably for this purpose the Nauheim springs salts. The directions for instituting the home treatment are full and accurate and will be much appreciated by the profession as a whole. Especially valuable are the chapters dealing with appropriate gymnastic exercises in selected cases.

POPE: "MEDICAL DICTIONARY FOR NURSES"

A Medical Dictionary for Nurses. By Amy E. Pope. New York and London: G. P. Putnam's Sons. 1914. Price \$1.00.

In her very brief preface, the author says: "My thanks are due to the publishers who suggested the compiling of this book." By the same token and to the same extent, the publishers are deserving of the thanks of the entire nursing profession. And, while we are distributing thanks, do not let us forget the author herself, who has done so much for her own fraternity. The fact is, this is one of those books about which one wonders why it was not produced long ago.

The difference between this book and a dictionary for physicians becomes evident as soon as one looks into it; and this difference immediately justifies its existence. It is something more than a mere dictionary. It does more than define; it explains, simply, clearly, briefly, the things the terms for which it embodies, and does it from the standpoint of the nurse. And to those who are familiar with the rest of Miss Pope's works it is not necessary to say that this is all done in excellent style and with rare judgment. We will go even so far as to say that they who write dictionaries for physicians may well learn from the way in which Miss Pope writes a dictionary for nurses. If this be treason, be it so.

OVERALL: "EVOLUTIONARY MEDICINE"

Evolutionary Practice of Medicine and Surgery. Causes and Diagnoses of Chronic Diseases. By George Whitfield Overall, M. D. Chicago: The Rowe Publishing Company. 1914.

The author feels that he has succeeded in ascertaining the causes, diagnoses, and cure of from eighty to ninety-five percent of all those chronic diseases which hitherto have

been considered incurable, and that he has set back the hand of the surgical dial almost to the vanishing-point. It is now more than six years since the last edition of Overall's work was issued, and since that time many noteworthy improvements and discoveries have been made. Of special interest are the recent discoveries of various causes of disease, knowledge of great assistance in diagnosis, not only of the troubles traceable to the kidneys and other genitourinary organs, but also of obscure heart, nerve, and circulatory complications, characterized by excessive alkalinity or acidity of the urine, and which give rise to many other organic diseases.

The principal part of the book, as doubtless everyone knows, is directed toward the treatment of acute and chronic prostatitis, in which the author has worked out a system of his own that is original and practical, and gives results that no other method can give. He does not wish to be understood as condemning the use of the knife in every instance, but holds it to be the physician's duty to exhaust every other means of relief before resorting to surgery.

OTT: "FEVER"

Fever: Its Thermotaxis and Metabolism. By Isaac Ott, A. M., M. D. New York: Paul B. Hoeber. 1914. Price \$1.50.

Doctor Ott is well known to the medical profession, both as an author and an authority in the field of physiology. His textbook has long been a standard in the literature of the subject, especially in the teaching-literature. By producing this little book, which represents a series of lectures delivered to his sophomore classes, he has filled in a gap in his own more elaborate work—a gap, indeed, which yawns in the midst of practically every treatise on physiology.

The method is inductive, from beginning to end. The author cites and explains the numerous and varied experiments that have been performed at different times and in different places, in attempts to investigate the problem of fever, and from them he draws his conclusions; and these conclusions are summed up in the view that fever consists of two main factors, namely, thermogenic and toxogenic.

It is not feasible to analyze or even to review these lectures adequately; they must be read—and read thoughtfully—in order to be understood and appreciated. Let no one imagine that their interest is purely academic; they have a decidedly practical value.

Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

Answers to Queries

ANSWER TO QUERY 6093.—“Tinea Versicolor.” In the May number of CLINICAL MEDICINE, I notice a query by J. D. S., concerning the treatment of tinea versicolor. It may interest him to learn that Tilbury Fox, in his work on skin diseases, gives what I consider an infallible remedy for this trouble; this treatment having been employed by me in many cases, even those of many years’ duration, and without ever a single failure. I quote from the book in question:

“I have one mode, and it is always successful. I, first of all, have the part washed with yellow soap, then sponge with a little weak vinegar and water, and apply freely a lotion composed of from 4 to 6 Grams of hyposulphite of soda and 6 ounces of water. A hyposulphite bath once or twice, if the cure be obstinate, will aid somewhat, but I never require much else than this for any case. The secret of the cure consists in getting off, by the use of the watery lotion, the greasy matter of the skin with soap, and in continuing the use of the parasiticide for some time after all appearance of the disease has vanished.”

If J. D. S. will make fair use of this treatment and fail, I then believe he should correct his diagnosis.

Winchester, Tenn.

J. W. GRISARD.

ANSWER TO QUERY 6098.—“Mistletoe.” Reading the article in the May number of CLINICAL MEDICINE on “Mistletoe” carries me back to the days before the war. I distinctly remember several cases of “fits,” as they were then called, being cured by tea made from this plant, which was gathered from the apple trees in the winter. It stays green all the year round.

W. S. CLINE.

Woodstock, Va.

ANSWER TO QUERIES 6087 AND 6093.—“Varicocoele” and “Ringworm.” If J. R. P., California, will try bathing with cold water several times a day, in connection with the use of a proper suspensory, he will find that only in the worst cases will an operation be required for the treatment of varicocoele.

Also, if J. D. S., Pennsylvania, will refer to page 340 of the April, 1914, number of CLINICAL MEDICINE, he will find, under the heading, “Novel Treatment for Ringworm,” a description of one of the best methods of managing this disease. The patient can often be cured permanently by a single application. Never have I found more than two such applications necessary to complete the cure.

G. L. J.

—, Tennessee.

Queries

QUERY 6100.—“Stomatitis, and the Wassermann Test.” R. H. L., Texas, asks for assistance in the following case. “The patient, a woman of 25 years, has enjoyed good health, all her life, except for rheumatic pains in various parts of the body, which started some ten years ago. Also, there is a tendency to indigestion. Her father died, at the age

of 43 years, from pneumonia, but always had been considered a healthy man. Her mother is living and in good health; so are her brothers and sisters. I can discover no evidence of syphilis, although no specific test has been made.

Ever since this patient was 12 years old, she has been troubled with small ulcers in

her mouth, on the gums and cheeks. These ulcers persist for a few days or weeks, then heal up; but others follow in different spots of the mouth. They first appear as small, round, highly inflamed nodules, which in a few hours break down and turn a whitish color, remaining thus (often enlarging to the size of a half pea) until final healing. The lesions seem to be more plentiful just before the catamenia, and for the last six months the vagina is affected as badly (or worse) as the mouth. The eruption is of the same nature, exactly.

"This woman has been under my treatment for about three months, but there is no improvement, notwithstanding that it would be easier for me to tell what has not been done, than to describe the various therapeutic procedures tried. The patient, moreover, has 'been the rounds,' has tried all the doctors within reach, yet, nothing has been accomplished by any. Of course, she is very much discouraged. This woman has been married for eight years, but never has been pregnant. Her husband is a stout, healthy man. He was married before and has one son, about grown up, who is perfectly healthy."

It is not impossible that this is a somewhat atypical ulcerative stomatitis; however, the fact that the vaginal mucosa also is affected looks decidedly peculiar, especially when we consider that the eruptions in the mouth began at about the starting of sexual life, with the vaginal lesions appearing after her marriage. Altogether, one is inclined to suspect syphilitic infection. The lesions would seem to be almost characteristic. The appearance, ten years ago, of "rheumatism" in various parts of the body may, of course, indicate marked and persistent autotoxemia, but also the presence of the Neisser bacillus. But, the failure of all ordinary treatments is decidedly suggestive.

Under the circumstances, we suggest that you have a Wassermann test made and send a specimen of the discharge from the ulcers (buccal and cervical), together with a 4-ounce specimen of urine (taken from the 24-hour output, stating total quantity voided) to a pathologist, for examination.

QUERY 6101.—"Treatment of Morphinism." H. S., Missouri, and others, request an outline of the Lambert-Towns treatment, and ask whether it can be successfully employed in private practice, with the patient remaining under care at home.

The most recent description of the Lambert-Towns method of curing morphinism appeared in *The Journal of the American Medical Association* for March 20, from which we copy the salient points. The main feature of this cure consists in a vigorous cleaning out of the intestinal tract, by means of compound cathartic pills and blue mass. The other essential is, the persistent administration of the following belladonna mixture:

Tinctura belladonnae (15 percent) . . .	dr. 1
Fluidextracti xanthoxyli	dr. 1
Fluidextracti hyoscyami	dr. 1

After three or four abundant evacuations of the bowel, following the administration of 5 or 6 compound cathartic pills and 5 grains of blue mass, the patient is given, by mouth or hypodermically, in three divided doses and at half-hour intervals, from 2-3 to 3-4 of the total 24-hour dose of morphine (or other narcotic drug) which he is in the habit of taking. By means of a medicine-dropper, the patient is given 6 drops of the foregoing belladonna-mixture with each fractional dose of the morphine, as just explained; being repeated every hour for six hours. At the end of the period, the dose of the belladonna-mixture is increased by 2 drops, and continued at hourly intervals for another six hours. Then it is again increased by 2 drops. This course is continued, at the same intervals, increasing the dose by 2 drops after each six hours until each single dose of the mixture reaches 16 drops. Then the doses are continued at this amount, unless the patient begins to show symptoms of belladonna-poisoning; in which case it is reduced by one-half. As soon as the toxic symptoms subside, the doses are again increasingly run up to the maximum or the limit of toleration.

Ten hours after the initial dose of morphine in the course, 5 compound cathartic pills and 5 grains of blue mass again are given. In fact, the treatment seems to depend upon forced purgation and the induction of a mild belladonna-delirium.

Answering the second query, the Lambert-Towns method undoubtedly is effective, while also it could be carried out at the patient's home, provided a thoroughly reliable attendant is constantly in charge; the physician himself also maintaining a close supervision.

A different, equally successful but decidedly less distressing treatment has recently been presented to the readers of *CLINICAL MEDICINE*. As was stated in that article (Waugh, April, p. 336), the individual who really is in earnest can, by this course, be cured, positively

and without undue suffering, in from ten to twenty days. Of course, any one whose system is suddenly deprived of such a potent drug as morphine must, for at least thirty days after its withdrawal, be looked upon as a convalescent, and treated accordingly. Half the failures are attributable to the withdrawing of tonics and allowing the convalescent to overtax himself within a few days after relinquishing his drug.

QUERY 6102.—“Hemorrhoids and H-M-C Anesthesia.” E., Mississippi, is his own patient, suffering greatly from hemorrhoids, mostly external, but also internal ones. He is in good health and able to help himself, but cannot consent to general anesthesia, for an operation. He wishes to know if the operation could be performed under H-M-C and local anesthesia, or, whether it would be preferable to inject carbolic acid and glycerin at the base of the tumor.

Our correspondent informs us that he has used H-M-C several times when extracting badly decayed roots of teeth, with satisfactory results. He has also seen it used successfully where abscesses were opened and broken arms set, when the swelling and the pain both were great; the patient, in some cases, sleeping while the work was going on. Hence, he thinks H-M-C should prove “the thing” in removing his piles.

External (thrombotic) hemorrhoids can be incised and the clot evacuated under local anesthesia with chloride of ethyl. Internal hemorrhoids, however (so-called “marginal tumors”), may be injected painlessly by a competent operator, and the results in practically every case be thoroughly satisfactory. External “tabs” (old piles) may be snipped off under cocaine or ethyl-chloride anesthesia. Marginal (chiefly external) tumors may be cut around, ligated, and removed either under general or under the influence of H-M-C and local anesthesia.

For the excision, ligation or removal of internal hemorrhoids by means of clamp and cautery, general anesthesia is essential. Any of these procedures demands thorough division of the anal sphincter. The clamp and cautery method properly used is followed by the least postoperative pain, and the result is decidedly good. As we already have stated, hemorrhoids on the margin of or external to the internal sphincter must, under no circumstance, be injected.

We suggest that you let such local physician as you may select make a thorough

examination and report his findings, when we shall be in position to advise you more fully.

We learn with great pleasure of your successful use of H-M-C. Under the influence of H-M-C and anethaine, practically any minor operation can be performed, with a minimum of discomfort to the patient as well as operator. As a closing advice, let us urge upon you the desirability of having rectal surgery performed only by a physician having experience in this work.

QUERY 6103.—“Pyelonephritis. Dysentery.” W. G. S., Alabama, asks advice in a case of “hysteria or neurasthenia.” “The patient,” he writes, “is a married woman, 24 years of age, who has been having attacks of her trouble since her first labor, three years ago, when she was taken with convulsions. She asserts that at that period pus from her right kidney was discharged with the urine. She now is extremely debilitated and confined to bed. Her tongue is heavily coated. Strong sedatives, containing an opiate, must be used to quiet her. She has ‘intestinal indigestion’ and complains of pain over the kidney originally affected. She imagines that all and everything is the matter with her, and it really does seem as if many things were amiss. What will build her up, correct the disorder of the tract (her abdomen is swollen all the time), and quiet her nerves?”

“Another question: What will prove really helpful in chronic dysentery—the patient being an old lady?”

To prescribe intelligently for your patient, doctor, we must have a much clearer idea of basal pathological conditions; it is more than possible, though, that she has pyelonephritis and that the right kidney perhaps is virtually a pus-sac.

Institute a thorough physical examination, doctor, and particularly look into the question of tuberculosis, pelvic derangements, and elevated temperature. Then, with your report, send us a specimen of her urine (4 ounces from the mixed 24-hour output, stating the total quantity voided); also (preferably) a blood-smear, for examination, by our pathologist. With this, we shall be in position to aid you more effectively.

If the woman merely is a hysteric, thorough elimination, supplemented by tonic reconstructants, will prove sufficient; however, we fear the condition is much more serious.

Basing your medication upon the general symptomatology, you might, provisionally, put the woman on the following: Arbutin, gr. 1, and hexamethylenamine, grs. 2 1-2, to

be taken every three hours, with a glass of thin barley-water, or, if she can drink it, just plain hot water. Also: papain, gr. 1; pepsin, gr. 1; berberine hydrochloride, gr. 1-32; strychnine sulphate, gr. 1-128; such a dose fifteen minutes before eating. Furthermore, an hour after dinner and supper, a dose of chionanthoid compound. In addition, wash out the bowel every second or third day with copious enemas of the customary salt solution at body-temperature. For toning, have the woman take an epsom-salt sponge-bath (1:32) at equal intervals. Be very particular as to the diet. Impress upon her the fact that she will get well; making this more positive after the biologic specimens have been examined and treatment is based upon the pathologist's report. Do not forget, however, that there is just a possibility that nephrectomy may be necessary.

As to dysentery, emetine now is known to be the most effective remedy for the amebic form of this malady; while it also sometimes proves effective in the bacillary variety. Here, also, before we decide upon our course, we first must definitely ascertain the basal pathology. It would be well for you to send a specimen of the patient's feces, for examination.

QUERY 6104.—"Retroversion and Retroflexion of Uterus." C. F., Nebraska, has in his care a particularly troublesome case of retroversion of the womb. The patient is 21 years old, married three years, and gave birth to a child one year ago. She is inclined to be "fleshy" and enjoys comparatively good health, with the exception of some catamenial cramps and pain in the back upon unusual exertion. It seems that the retroversion existed as long as five or six years ago. The womb was replaced soon after her marriage, but did not stay "put." After the birth of the child it spontaneously assumed a normal position, but gradually descended again when the patient got up.

"Recently, when the woman was going upstairs, a certain movement was followed by a sudden strong pain felt in the uterine region, and a subsequent examination showed that the womb had once more assumed its normal position. This occurred after a brief course of medication with macrotys. Soon, however, the uterus again prolapsed. Packing has not proved helpful. Since the birth of the child, the woman has been troubled somewhat with a rather thick yellowish leucorrhoeal discharge from the uterus. Gen-

erally there is some tenderness in that region. Please describe the best treatment."

Needless to say that it is impossible to express an opinion as to the best method of treating retroversion or retroflexion of the womb generally, although it would be a comparatively simple matter, after a thorough examination, to say what should be done in any particular case.

In retroversion, especially, the condition of the pelvic floor, pelvic organs, ligaments, and the retentive power of the abdominal cavity must be considered. Where the pelvic floor for any reason is unable to afford proper support and, moreover, there is undue abdominal pressure, it is very easy for the uterus to be displaced backward; and to secure and maintain a normal position by no means is a simple thing.

As you are aware, doctor, posterior displacements are much more frequent than any other form and are more frequently observed in parous than in nulliparous women. After the menopause, the atrophied uterus nearly always is displaced backward—retroverted (not, retroflexed), although, as a matter of fact, it is almost impossible in a uterus of normal size for retroflexion to occur without some degree of version. Nearly always both forms of displacement exist in the same case.

Treatment must, of necessity, depend upon causative conditions. These may be classified thus: (1) those destroying the supporting power of the floor; (2) those lessening the sustaining action of the pelvic organs; (3) those weakening the retentive power of the abdomen; (4) those interfering with the strength of the uterine ligaments.

In cases where pelvic lesions are present (that is, tumors, adhesions, and other gross conditions that push or pull the womb out of its normal situation), operation, of course, is essential. The idea, therefore, that a woman having a retroverted uterus can be cured by the haphazard application of tampons or the use of an intrauterine stem or ring-pessary is erroneous.

In the discussion of the treatment, some excellent authorities put their cases into two classes, namely, recent ones (less than one year old) and chronic cases (those of longer duration).

After the uterus has been displaced for some time, the tissues and ligaments are so degenerated that it is impossible for them to regain their normal contractility; hence, all forms of local, mechanical, or general treatment (which possibly might effect a cure in a

recent case) must prove useless. In a recent case, treatment, based upon a clear conception of exact conditions, must be continued for not less than twelve months; then, if at the end of that period normal conditions have not been reestablished, the displacement must be regarded as a chronic one and treated accordingly.

It is impossible for the present writer to outline here the various procedures necessary to remove or correct causative conditions. The method of replacing the retroverted uterus is perfectly described in all recent textbooks on gynecology. Ashton's "Gynecology," as an example, contains a most excellent chapter on this subject.

If, after studying the subject carefully, you desire to ask any definite question, or think we can aid you to secure results in any particular case, we shall be pleased to serve you to the extent of our ability. Do not, however, forget, doctor, that, in order to enable us to formulate an intelligent opinion, we first must have in mind a clear clinical picture.

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 QUERY 6105.—"Distilled Water for Drinking-Purposes." J. H. M., Kansas, asks our opinion as to the advisability of giving distilled water to children to drink. "Some physicians," he says, "hold that children do not get enough of the calcium salts when they drink distilled water exclusively."

The query-editor does not believe that, ordinarily, it is desirable to confine children to distilled water as a beverage. Waters vary materially in their composition, but pure water—that is, water free from pathologic microorganisms and gross débris—without doubt is preferable to the distilled article. It cannot be questioned that the modern tendency to purify or denature everything we eat or drink is leading to physical degeneration. Witness the reduced stature, imperfect teeth and bones and lack of resistance of the rising generation, in fact, even of their parents; comparing them, if you please, with the human specimens of fifty or seventy-five years ago, who ate unprocessed flour or (better yet) whole meal, and unprocessed meats and vegetables, and who, whenever thirsty, drank freely of good spring- or well-water, cider, and milk.

It is quite true that the growing child requires a certain amount of lime, and that, if we distil the water and remove from their food every trace of this and other essential cell-salts, we hardly can expect men to grow up rugged and possessed of the physical

force necessary to resist the diseases and the strain of modern life. Of course, it is possible for water to contain a harmful excess of calcium salts. When this condition is known to exist or is suspected, distillation would prove desirable; although boiling and sedimentation is preferable, because of leaving some calcium and all the alkali salts.

We cannot here discuss the subject as fully as we would wish. We are aware, of course, that the rather extensive, though temporary, use of distilled water on shipboard and elsewhere has not been followed by any bad results; neither are we unmindful of the fact that in certain regions where limestone formations and alkaline deposits occur gastric and intestinal disturbances of some kind follow the constant use of the local waters. On the other hand, people using distilled water on shipboard do so for only a comparatively short period and, in the great majority of cases, are full-grown.

Your question applying particularly to growing children, we may add that, in our belief, distilled water, under ordinary circumstances, is not at all more desirable for them than pure ordinary water.

It is claimed by some writers that the food should provide all necessary salts in abundance; but this, in modern life, it does not do. This subject may be taken up again at length in a subsequent issue of this journal.

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 QUERY 6106.—"Infantile Hernia." L. I. B., Nebraska, asks what is the best form of support for congenital hernia in an infant. "The ordinary trusses on the market," he writes, "I find impractical—for several reasons. They are unfit for use after being soiled and, besides, the infant soon outgrows a truss; consequently, it is necessary to have at service several trusses at once, and these, again, must be changed from time to time for larger ones. Furthermore, the 'button and band' contrivance does not answer where the opening is large and the intestines descend into the scrotum. Can you suggest anything short of operation? How early would you advise operating?"

Hernia, as you know, is not uncommon in infants, those of the inguinal and umbilical type being those most often met with. Inguinal hernia may occur in both sexes, although the condition is observed in boys twice as often as in girls. This greater tendency to hernia in the male, as also their preponderating occurrence on the right side, depend upon certain developmental changes associated with the descent of the testes

from the abdomen. There is much evidence that all inguinal hernis in children result from imperfect closure of the processus vaginalis testis and are, in the strict sense of the word, congenital, although the condition may not be recognized for weeks, months or even years after birth.

The object of the physician must be, of course, to assist nature to complete the closure of the processus vaginalis, by preventing the descent of the abdominal viscera. This may be accomplished by an operation and removal of the hernial sac or (sometimes) by applying an appropriate truss. Never should a child be left untreated. Some hold that invariably the hernia should be obliterated by an operation; others insist that the wearing of a truss suffices in every instance. The truth doubtless lies somewhere between these extremes.

The radical operation is simple and effective and, were it not for the fact that undoubted cures have followed the wearing of a truss, it would be urged without exception. However, operation should be insisted upon when the child is more than 4 years old, unless, of course, there are good reasons against any form of operation; but also in all children who are less than 4 years, but in whom no truss can be made to retain the rupture. The operation, of course, is exactly the same as for an adult.

If a truss is to be applied, it should consist of a light steel spring coated with rubber, and the pad be of such size that it covers the entire length of the inguinal canal, but not pressing upon any part of the pubic bone. The measurements must be carefully made. It is impossible to give a rule as to how long a truss should be worn; roughly speaking, however, for at least a year after all signs of protrusion have disappeared; two years is a safer rule.

It is impracticable to single out any particular kind of truss for recommendation; still, on the whole, the foregoing will answer most of your points. The need of a set of trusses is obviated by heeding the injunction of getting a rubber-coated truss—for which, if the mother prefers, she may make a set of cloth sheaths, to be removed and washed. Then the purchase of one new truss from time to time cannot, surely, be considered a hardship.

QUERY 6107.—“Retention Neurosis?” C. E. D., Ohio, describes the case of a man, 50 years of age, mental worker, who complains of a burning pain about the knees and the sciatic region of both thighs coming on after sitting still and more particularly after close application to any mental work. Otherwise, he is in the best of health. His complaint is, that it interferes with his work, making him irritable and nervous, and is compelling him to get up and walk around. This pain, which has troubled him for the past three years, is never severe, but extremely annoying and has been growing worse lately. Tests of the urine and blood have proven absolutely negative. At first there was a little indicanuria, but that has disappeared. He has been on a meatless diet, regular course of physical exercises, and hygienic training for five months. His general health and endurance are above the average for his age. He is a large man, weighing about 200 pounds but does not carry very much surplus fat. He avers having experienced a burning sensation in the soles of his feet more or less constantly ever since he can remember—has to stick his feet out of the bed-covers at night; and his mother had the same trouble. Syphilis may be excluded. Several good nerve-specialists consulted, failed to do him good, he asserts. “Can you surmise what may be the cause and suggest treatment?”

Although you say, doctor, that urine and blood tests have proved absolutely negative, we suggest that, first of all, you forward to our pathologist 4 ounces of urine from the 24-hour output, stating total quantity voided. That will enable us to get a clear idea of the condition of your patient's body-chemistry.

The trouble hardly can be of the nature of neuritis, so, we rather are inclined to regard it as a neurosis of toxic origin. What is the condition of the prostatic gland? Is there proctitis or marked constriction of the anal sphincter? Are the reflexes (especially patellar) normal or exaggerated? It frequently is difficult to discover the origin of such vasomotor disturbances; so, it would be interesting to find out whether the surface temperature is increased or reduced, especially during the attack. Note also whether there is pallor, blueness, mottling or redness of the involved surfaces. Then favor us with a full report.

